THE WORKSTATION NEWSWEEKLY

MacWEEK

$3.50

2 7 | Volume 1 | Nov. 10, 1987

INSIDE

Lighting up GE
GE connects with Macs
Page 14

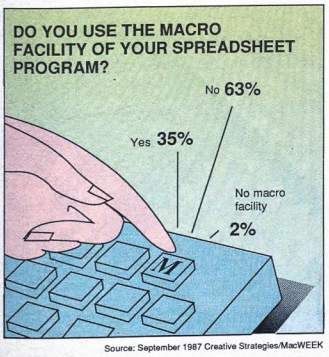
Window On
Desktop publishing, vertical markets
Page 18

Reviews
Monitors, thesauri
Page 28

"The Mac creates the magazine. If it weren't for the Mac, the magazine wouldn't exist today."

The edge in publishing
Tom Hsieh Jr., publisher of International Snowboard Magazine
Page 15

ZOOM IN



Source: September 1987 Creative Strategies/MacWEEK

HANK DELESPINASSE

Bob Perez, a Macintosh evangelist, said Apple will measure its success at COMDEX by the number of new VARs and developers who sign up with Apple.

Zest for the Mac runs high at traditionally PC show

BY DANIEL RUBY
and JIRI WEISS
MacWEEK Staff

LAS VEGAS, Nev. — Even without new product introductions from Apple, enthusiasm for the Mac ran high last week as tens of thousands of developers, resellers and corporate users flocked to Apple's exhibit room off the main COMDEX floor.

In addition, Mac products at the traditionally IBM PC-oriented show were displayed in hundreds of booths.

Apple's primary goal at COMDEX/Fall '87, held here last week, was to recruit new developers and value-added resellers to the Macintosh bandwagon.

"We will measure the success of the show

See APPLE, Page 37

No '030 Macs in 1988; Apple bides its time

BY JON SWARTZ
and JIRI WEISS
MacWEEK Staff

SAN FRANCISCO — Even though Motorola's "Oh Thirty" could become the sexiest chip in the workstation marketplace, Apple said it won't introduce a 68030 microprocessor-based product in 1988.

"Apple will not be the first to come out with '030 products," John Sculley, Apple president, chairman and CEO, told financial analysts in New York recently. "When the new machine does come out, it will not be a replacement but an extension to existing products."

Industry analysts said Apple's deliberate slow hand should produce a royal flush, so to speak.

Analysts said Apple is biding its time until hardware is developed to exploit the 68020-based Macintosh II and boost sales.

A handful of high-technology firms from Oregon to Georgia have expressed interest in developing 68030-based accelerator boards next year.

"With a new chip, you don't want to be the

See MOTOROLA, Page 37

MicroPro acquires Mac word processor

BY CLAIR WHITMER
MacWEEK Staff

SAN RAFAEL, Calif. — The PC granddaddy of 'em all has adopted a young Macintosh word processor.

MicroPro International, maker of the WordStar line of products that helped give birth to the personal computer market, has acquired an unreleased Mac word processor from Challenger Software of Homewood, Ill.

The program, code-named "Smaug" after the dragon in J.R.R. Tolkien's fantasy novel "The Hobbit," integrates word processing with graphics and page-layout capabilities, which would put it in the same category as the soon-to-be-released FullWrite Professional from Ann Arbor Softworks of Newbury, Calif.

"Our product will be differentiated from FullWrite," said Leon Williams, president of MicroPro International. "[The program] will break new ground for business because one

See MICROPRO, Page 37

COMDEX fiddled while Wall Street churned

BY DANIEL RUBY
MacWEEK Staff

LAS VEGAS, Nev. — A quiet undercurrent of concern about the health of the computer industry in the wake of last month's stock market crash dampened the otherwise festive air of the largest computer trade show ever held.

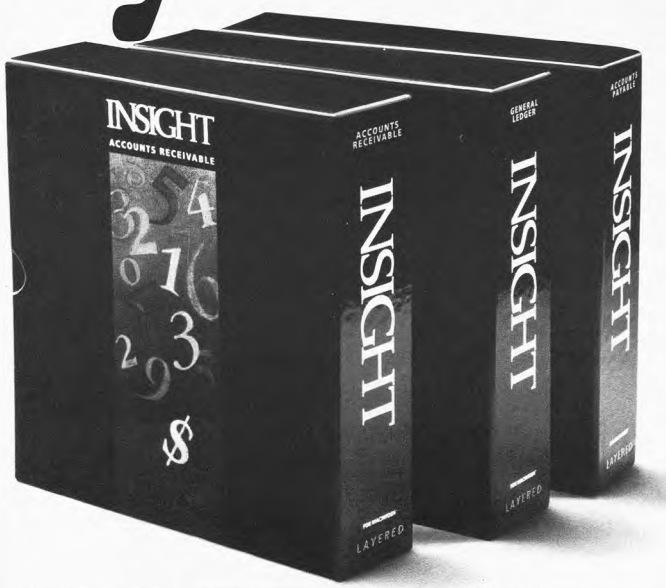
It wasn't quite a matter of playing a fiddle while Rome burned, but analysts, financiers and industry executives, looking beyond the

See CRASH, Page 37

HANK DELESPINASSE

Rick Sherlund: "There is no question that consumers are going to retrench and cut back purchases."

Take $595 off your Payables.



Buy the Insight Expert Accounts Receivable/Billing module before December 31, 1987, and get the Accounts Payable module free—a $595 value.

PROMOTION VALID ONLY AT PARTICIPATING DEALERS

The best-selling accounting software in America—Insight Expert—is also the most honored.

MACWORLD WORLD CLASS AWARD 1987

MacUser EDITORS CHOICE AWARD 1·9·8·6

LAYERED
HELPING SMALL BUSINESSES WIN

Recommended for all Apple® Macintosh™ computers and AppleShare™

FOR MORE INFORMATION CALL: 617-242-7700

Apple® is a registered trademark of Apple Computer, Inc. AppleShare™ and Macintosh™ are trademarks of Apple Computer, Inc. Layered and the Layered logo are trademarks of Layered, Inc.

CONTENTS

NEWS

Verbatim shows magneto-optical drive 09
New Cricket Draw includes color support for Mac II 06

WORKSTATION WEEK
AUTOFACT '87: Apple drives at engineering markets 10

BUSINESS WATCH

Apple donation links social agencies 11

FEATURES

Mac fax modem to emerge from "The Pit" 13
Network links GE facilities 14

PEOPLE
Making music with a bridge and a Mac 15

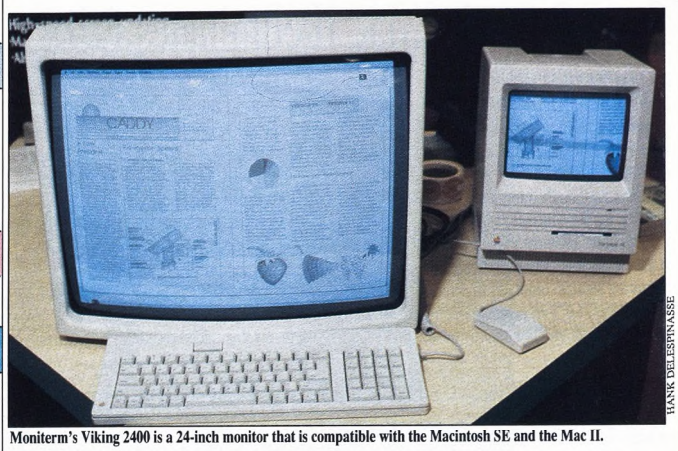
EDITORIAL/OPINION

Time to clear up FCC regulations of computers 16
John Edwards: Communicating 17
Mac the Knife 38

PRODUCTS

WINDOW ON
Desktop publishing: Mac II spawns new publishing products 18
Vertical markets: Mac stakes out new territory 26

REVIEWS
Monitors: Choices with Mac II 28
Thesauri: In search of le mot juste 30



HANK DELESPINASSE

Moniterm's Viking 2400 is a 24-inch monitor that is compatible with the Macintosh SE and the Mac II.

Moniterm shows 2-page display monitor

BY CLIFF LEHMAN
MacWEEK Staff

LAS VEGAS, Nev. — Moniterm Corp. showed off its Viking 2400, the first truly two-page display monitor, at COMDEX/Fall '87, held here last week.

The Mac-compatible, 24-inch monochrome monster is intended for desktop publishing and CAD/CAM markets, according to Steve Peer, Moniterm's Macintosh product manager.

The Viking 2400 monitor displays 1,280 by 960 pixels on its 18-by-13-inch screen and is compatible with both the Mac SE and Mac II. The $2,595 monitor can show a tabloid page, two legal-size pages, a full B-size engineering drawing or a 134-by-68-cell spreadsheet.

Moniterm also unveiled a gray-scale monitor for the Mac II, the Viking Analog. The 1,024-by-768 pixel monitor provides 72-dpi resolution and 256 shades of gray. The Analog costs $2,395 and is intended for desktop publishing, image processing and presentation graphics, among other applications.

The company also revealed a Mac II controller for the Viking 10 19-inch color monitor. The 72-dpi monitor provides 256 colors from a palette of 16.8 million. The 1,024-by-768 pixel monitor with the Mac II card sells for $4,795.

Until recently, Moniterm has confined itself to the OEM market, but it now has five monitors for the retail market, and the company said it has the largest share of the U.S. market for 19-inch high-resolution monochrome monitors.

Moniterm Corp. is located at 5740 Green Circle Drive, Minnetonka, Minn. 55343; (612) 935-4151. ■

Fox compiler runs PC dBase III applications

BY JIRI WEISS
MacWEEK Staff

LAS VEGAS, Nev. — Fox Software Inc. demonstrated last week a Mac compiler called FoxBase that will run unmodified IBM PC dBASE III Plus applications.

The product was shown at COMDEX/Fall '87, held here Nov. 2-6.

"Applications will work without any change," said Dave Fulton, president of the Perrysburg, Ohio, company. "Once it works, they can add features of the standard Mac toolbox such as buttons, icons and pictures."

According to Adam Green, an Arlington, Va.-based author and authority on dBASE, up to 20 percent of the approximately 5 million dBASE users will want to switch to the Mac.

"Maybe dBASE programs are ugly," Green said, "but if there are 10 times as many dBASE people, who cares?"

The $395 FoxBASE+/Mac is targeted more to entice PC value-added resellers (VARs) to switch to the Macintosh than to sell to Mac converts, he said. "Most of the 200,000 to 300,000 potential database customers for the Macintosh are probably already enamored by the Mac interface and would not be interested in a database language anyway," he said.

Fulton said Fox, a company with four programmers, would be happy to get 10 percent of the 2 million to 3 million users of dBASE on the PC who may be interested in going to the Mac.

One of the largest dBASE VARs, SBT Corp. of Sausalito, Calif., publisher of a McMax-based Mac accounting package, is definitely interested in FoxBASE+/Mac, said James Buzzard, SBT's vice president of development.

Fulton dismissed existing database programs on the Mac as "mere toys." He said, "All existing products handle about 1,000 records. If you give them 10,000 you can time them with a calendar instead of a stop watch."

The COMDEX demonstration of FoxBase had the program running on a Mac II with 4 Mbytes of memory. The program indexed 10,000 records 64 bytes in size in 12 seconds, sorted them in 24 seconds, copied them in 15 seconds and replaced them in 12 seconds.

FoxBASE+/Mac runs on Macs from the Plus to the Mac II. Because versions also are available for workstations and PCs running XENIX, UNIX and VMS operating systems, developers and users will be able to transport their databases between systems, Fox said.

Fox Software Inc. is located at 122 W. South Boundary, Perrysburg, Ohio 43551; (419) 874-0162. ■

Modern Jazz aimed at Works market

BY DANIEL RUBY
MacWEEK Staff

LAS VEGAS, Nev. — The strategic positioning of Lotus Development Corp.'s Modern Jazz became clearer last week as the company previewed the product at COMDEX/Fall '87 in advance of its scheduled official launch at Mac Expo in January.

"Modern Jazz is for users who want to do a little of everything, not numbers jocks," said Kim Shah, business development manager for Lotus. Thus, Modern Jazz is aimed at the market owned by Microsoft Works, not the spreadsheet market dominated by Microsoft Excel.

"But there is a difference," he said. "Microsoft treats Works as a starter package that users will outgrow. We offer enough capability for many users to stay with Modern Jazz."

No trade-offs in functionality are made for the sake of ease of use, Shah said. Unlike the original Jazz product, which failed to catch on in the marketplace, Modern Jazz has powerful macro capabilities. He added that the spreadsheet in Modern Jazz will be as fully functional as the spreadsheet to be released in 1-2-3 for the Macintosh, which Lotus last month said it was developing.

The preview showing was the third time Lotus has showcased the program since Apple World last spring. According to Shah, such open demonstrations give users a chance to react to and influence the product while it's still under development.

Shah said as a result of user feedback, features such as named rulers and communications programmability have been added.

While the program has been shown before, this was its debut under its new name. "Modern Jazz is built around the core of Jazz, and we didn't want to lie about that," Shah said.

Each function in the integrated program — spreadsheet, word processing, graphics, database and communications — has been beefed up over the equivalent Jazz function, Shah said.

No price or availability dates were announced. Shah said Modern Jazz will be officially rolled out at Mac Expo.

Regarding other products, Shah said the Mac 1-2-3 version will be developed simultaneously with 1-2-3/G, a version of the spreadsheet to run under the OS/2 Presentation Manager. Both versions will offer Lotus' recasting of its interface for a graphical environment.

Lotus is located at 55 Cambridge Parkway, Cambridge, Mass., 02142; (617) 577-8500. ■

SoftPC for the Mac II eliminates DOS coprocessor boards

BY MACWEEK STAFF

LAS VEGAS, Nev. — The capital of synthetic culture is a good place to introduce synthetic hardware. Insignia Solutions Inc. did just that at COMDEX/Fall '87 last week when it demonstrated its PC emulation program, SoftPC, for the Macintosh II.

The $595 software package, which initially will be available only under Apple's A/UX operating system, emulates multiple IBM PC ATs on the Mac's own processor, eliminating the need for an add-in board for running MS-DOS applications, according to ISI.

"It emulates everything, [both] the CPU and graphics chips," said Henry Nash, ISI director of U.S. development. With SoftPC, the Mac II can run the full range of MS-DOS applications at PC-XT speeds, he said.

"It's very interesting," said G. Watts Hill II, vice president of Systems & Software International Ltd. of Dumfries, Va. "But if you have to have UNIX to run it, then I am not interested."

Hill, a value-added reseller who supplies Macintosh products to the government, said that he had sold about half a dozen of the AST Mac286 coprocessor boards. However, ISI already boasts an order of 46,000 units with the government, according to a company official.

SoftPC, written in C, originally was announced in January for UNIX-based workstations from Sun Microsystems Inc., Intergraph Corp. and MIPS Computer Systems.

Insignia Solutions Inc. is located at 1255 Post St., Suite 625, San Francisco, Calif. 94109; (415) 771-7001. ■

SuperPaint update to offer Mac II compatibility

SAN DIEGO — The first update of SuperPaint, which shipped a year ago, is being prepared, according to Charlie Jackson, president of Silicon Beach Software Inc., developer of the art program.

"This is more of an update than an upgrade," said Jackson. "There will be no new features [in Version 1.1]. Instead, it addresses compatibility issues."

SuperPaint 1.1 is "MultiFinder aware," which means it is tightly integrated with MultiFinder. This integration offers two advantages, according to Eric Zocher, vice president of software development at Silicon Beach. "Switching is noticably faster between applications, and there is more processing time available for background tasks," he said.

Another feature of Version 1.1 is an adjustment for full compatibility with the Mac II. "Before, [the program] would launch only in two-color mode, but you had to know this," Zocher said. "Now it will only let you run in the correct mode with messages guiding the user."

Silicon Beach Software is located at 9580 Black Mountain Road, Suite E, San Diego, Calif. 92126; (619) 695-6956. ■

New Hercules card links PCs to AppleTalk

BY DANIEL RUBY

MacWEEK Staff

LAS VEGAS, Nev. — Users of IBM PCs and compatibles can link to a TOPS AppleTalk network more easily than before with the Network Plus Card, announced by Hercules Computer Technology at COMDEX/Fall '87 held here last week.

The board adds an AppleTalk port to Hercules' existing Graphics Card Plus, used to drive monochrome monitors connected to PCs. Hercules graphics provide resolution of 720 by 348 pixels, compatibility with hundreds of PC software programs and a RamFont mode that permits a variety of special character sets to be displayed on a PC.

According to the Berkeley, Calif., company, adding AppleTalk networking to the graphics card frees a PC card slot while providing a TOPS connection at lower cost than the two functions would cost separately.

A price for the Network Plus Card has not been set, but the company said it would be less than $400. It will be available in January.

TOPS connectivity is only offered on Hercules monochrome cards. However, Andrew Fischer, director of operations, said the company probably would make the same capability available on Hercules InColor graphics boards as well.

The product was developed jointly by Hercules and TOPS, also of Berkeley.

"This move by a significant player in the PC marketplace underscores the fact that TOPS is not just an Apple network, but is fast becoming a universal communications product, connecting everything with everything," said Nat Goldhaber, TOPS' president.

James Harris, president of Hercules, said he expects many users to install the board for small PC-only networks running over AppleTalk. "There is a strong interest in TOPS because you don't need a dedicated file server," Harris said.

To use the TOPS network connection, buyers must install networking software sold separately by TOPS.

In addition to connecting PCs and Macs, the TOPS network also can be installed on UNIX-based systems, including workstations from Sun, TOPS' parent company.

Hercules Computer Technology is located at 921 Parker St., Berkeley, Calif. 94710. ■

FullWrite documentation ready, but program delayed again

BY DANIEL RUBY

MacWEEK Staff

LAS VEGAS, Nev. — Ann Arbor Softworks Inc. passed another milestone on the long road to the marketplace for FullWrite Professional by completing the printing of its documentation, company President Phil Lipetz said at COMDEX/Fall '87, held here last week.

The documentation consists of two manuals, a user guide and tutuorial.

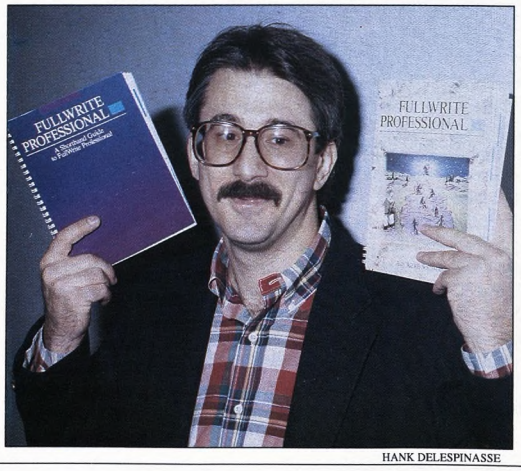
Lipetz made no promises about a shipping date for the word processing program. "We are in the process of completing final revisions and bug fixes," he said.

When FullWrite Professional was announced in January, the program was expected to become available in April. Since then, the Newbury Park, Calif., company has repeatedly missed self-imposed deadlines.

Lipetz attributed the latest delay to making the program compatible with MultiFinder. "We had to completely redo the memory management, and we underestimated the difficulty of adapting it to MultiFinder," he said.

Two weeks ago, the truck carrying the FullWrite manuals from Los Angeles was hijacked en route. The merchandise was recovered.

"Believe me, this is not a tall tale," Lipetz said. "If it wasn't true, it would be the greatest excuse yet for delaying shipment of a product." ■



HANK DELESPINASSE

Softworks Inc. President Phil Lipetz said the completed documentation for FullWrite Professional was hijacked, but that's not the reason the product isn't ready to ship. The company is working on making the product compatible with MultiFinder.

Atkinson describes HyperCard 1.1

BY CLAIR WHITMER

MacWEEK Staff

BERKELEY, Calif. — Bill Atkinson, the creator of HyperCard, has been making the rounds of user groups recently, talking about his latest breakthrough and his upcoming enhancements to the program.

When Atkinson spoke recently to the Berkeley Macintosh Users Group (BMUG) in a packed auditorium, he started off with a couple of questions.

"How many of you use HyperCard?" Atkinson asked.

The audience raised hands en masse.

"Great," Atkinson replied. "So how many of you know what it is?"

The rest of his demonstration, and those of four others on the HyperCard team, tried to clear up any confusion on that question. Atkinson then discussed upcoming features.

Although neither Atkinson nor Michael Holm, HyperCard product manager, would specify a date for the next release of the program, Atkinson did say that he is "putting the finishing touches" on Version 1.1.

Analysts who cover Apple said the upgrade probably will be announced at the January Mac Expo in San Francisco, although no one can be sure about Apple's plans.

"You'll see the product before you see an announcement, said Holm. "We have a list of [more] than 50 things that we're going to implement at some point."

"As far as Version 1.1 goes, there'll be a lot of stuff to support international, and it has a bunch of bug fixes, most of which you haven't tripped on yet. There'll be some new features, too," said Atkinson.

Version 1.1 "shouldn't be that long away," he said.

Atkinson also talked about his plan to have the new release distributed over CompuServe as well as through the dealer network, believing that users shouldn't have to pay for HyperCard more than once.

Holm, however, said distribution methods haven't been decided.

Atkinson discussed a host of new features that eventually are going to be implemented, although not necessarily in the next upgrade. He has already completed about two-thirds of his own personal features list, he said.

He listed as a high priority "text sticky buttons" that stick to a range of text as the card is scrolled through. The team also is working on some "concurrent access stuff" so that more than one person at a time can access a stack across a network.

Atkinson said he intends to program HyperCard so that it can run with other programs, such as Omnis 3 Plus. He is waiting for Apple to finish the protocols for interprocess communications to standardize how messages are sent between applications.

"As far as bug fixes, improved features and support, you can count on me being there for a while," said Atkinson. ■

Hewlett-Packard cancels ScanJet

Company drops development of gray-scale scanner

BY MACWEEK STAFF

GREELEY, Colo. — Yes, we have no ScanJet.

Hewlett-Packard Co. last week canceled the release of its once-delayed gray-scale scanner, said Liz Shoeman, product public relations manager for the company's Greeley, Colo., hard copy operation.

"The product will not be appearing. We're going back to the investigation phase," Shoeman said.

A problem with the software interface to the Macintosh was blamed for undermining the release of the 16-level, gray-scale flatbed scanner. The ScanJet was intended to connect to a Mac via a SCSI adapter and Mac interface software.

The HP9190A was supposed to retail for $1,495, with an additional $595 for the Mac interface, including a SCSI cable and software.

HP analyst Peter Rogers of Mabon, Nugent, a New York investment bank, was puzzled by the decision to drop the ScanJet.

"Obviously the Mac market is a pretty significant opportunity, and I think HP realized it. HP's peripheral business has been one of its strongest parts and a big success story in the PC market. It's not like HP to drop the ScanJet," Rogers said.

"It's not like the Mac market was a one-year window of opportunity," he said. "The Mac is really the only system that can use a scanner on a heavy-usage basis because of desktop publishing."

However, he said: "I don't think HP is signaling disenchantment with market growth or size. It has more to do with the kind of product they wanted and their ability to build it."

In a recent statement, HP said the release of the ScanJet would be delayed until February.

"We'll continue to work on it," Shoeman said.

Hewlett-Packard Co. is located at 3000 Hanover St., Palo Alto, Calif. 94304; (415) 857-1501. ■

DataScan converts charts into datapoints

BY JIRI WEISS

MacWEEK Staff

PLAINFIELD, N.J. — A $199 software package will convert printed graphs scanned into the Macintosh back into data points.

DataScan Version 1.12 from ISS Design can read line charts, bar charts and scatter graphs, according to ISS Design. DataScan also can be used to convert mechanical drawings into a text coordinate point file for CAD.

The program has been used by scientists to enter spectrograph data and by business people to recover data from a plotted chart, according to Bob Robinson, president of ISS Design.

After DataScan reads in an uncompressed bit map of a scanned graph, it plots its first approximation on the screen. The user then tells the computer the scale of the graph by entering highs and lows of their x and y axes. In addition, logarithmic scales can be read.

Users can correct data by erasing data points and tell the program to ignore lines drawn through points or grids.

From a line chart, the program will extract one data point per pixel or 72 data points per inch. Resulting data files can be read into Excel from Microsoft Corp. of Redmond, Wash., for analysis and plotting.

On a Mac 512K DataScan can handle up to 5,000 points; on a Plus, SE or II with 1 Mbyte of memory, it can handle up to 200,000 points.

ISS Design is working on a version of the program for converting engineering drawings. The company is planning to release the product early next year, Robinson said.

ISS Design is located at 531 W. Eighth St., Plainfield, N.J. 07060; (201) 756-0144. ■

CASPR announces library system

BY EMILY BROWER

MacWEEK Staff

CUPERTINO, Calif. — For librarians who have been waiting to automate on the Macintosh, the desktop library has arrived.

CASPR has announced a multi-module library automation program for the Mac called Macintosh Library System (MLS).

For $1,695, libraries can purchase the MLS base system for a single workstation that includes modules for creating a library catalog, running circulation and ordering new books.

The acquisitions module has a book supplier file and generates order forms for book purchases.

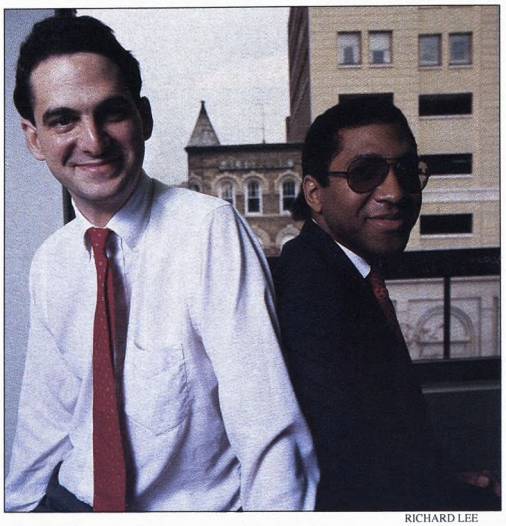
Printed reports of files can be produced from all three MLS base modules. For example, lists of books on reserve can be printed from the Circulation module.

The workstation can be a Macintosh 512KE, Mac Plus, Mac SE or Mac II with an ImageWriter printer.

The multi-user version of MLS runs on a file server and will be available by March 1988 for $4,995, the company said.

An additional module for serial and periodical control can be added to the single workstation MLS Base System for $495. The multi-user version of the serials control module is available for $1,295.

CASPR is located at 10311 S. De Anza Blvd., Cupertino, Calif. 95014; (408) 446-3075. ■



RICHARD LEE

Anthony Freeman, partner in PageWorks, (left) and Frederick Maynor II, senior partner, say they have created a new industry for the Mac with the release of PageWork's Ultra, a macro-driven shell for doing page layout with Quark XPress.

Macro-driven shell for XPress released

BY ELINOR CRAIG

MacWEEK Staff

STAMFORD, Conn. — Desktop publishing is one step closer to its goal of promising to be easier, faster and less expensive than traditional methods because of Ultra, a new program released by PageWorks.

Ultra, a macro-driven shell for Quark XPress, is basically two programs, Ultra and UltraSpec. UltraSpec does the coding and Ultra does the actual labor of page layout.

UltraSpec is a template designed in Excel that takes character counts from word processing documents. Through coding, UltraSpec puts the counts into the template. Ultra lays out the pages according to these specifications.

"We are creating a new market for the Mac in the industry," said Fred Maynor, senior partner of PageWorks, a division of Electronic Publishing/Support Services in Stamford, Conn. "Ultra makes high-quality layout available to much smaller publications, cutting employee overhead because the macros are intelligent enough to run unattended."

Consulting firms, such as the business resources information division of Gips, Balkind & Associates Group in New York, are considering offering the package for use by their clients. "It is a very exciting program," said Ed Marson of Gips, Balkind & Associates.

Ultra is designed for large publications as well as corporate newsletters, according to Maynor. This product is for investment brokers who want reports to look great but can't dedicate staff to do the page layout.

He said the program begins to be cost-effective at eight pages and stops being realistic for one computer at 128 pages.

"Ultra is a section-based program, so it would take too long to do on one computer. Since it is a custom product, we will be leaning on industry word of mouth, so we can take the time necessary with each client to produce a proper template," Maynor said.

Ultra can be loosely compared to the page layout system from ATEX Inc. of Bedford, Mass., a dedicated minicomputer system for professional page layout.

Quark Inc. of Denver, although not involved with the development of Ultra, is supportive of the program.

"We wish them all the luck," said Fred Ebrahimi, president of Quark. "We hope it is a successful program."

PageWorks is located at 1 Bank St., Stamford, Conn. 06901; (203) 964-1290. ■

SBT Mac accounting software upgraded

BY RUSTY WESTON

MacWEEK Staff

LAS VEGAS, Nev. — The SBT Corp. announced an upgraded version of its customizable database accounting library for the Mac at COMDEX/Fall '87, held here last week.

The Sausalito, Calif., corporation now includes source code in the Database Accounting Library programs.

"That means Macintosh users can now customize their accounting [procedures], from changing the size of an address field to creating a new cash flow report," said Tom Gottheimer, product manager for SBT.

All programs in the SBT library run on McMax database management software from Nantucket Corp. of Los Angeles.

Source code versions of the library include dLedger at $395; dInvoice/dStatements at $395; dPayables at $395; dOrders at $295; dPurchase at $295; dPayroll, dAssets, dProperty, dMaintenance and dProject at $395 each; and dMenu/Backup at $65.

Trial programs sell for $9.

SBT is located at One Harbor Drive, Sausalito, Calif. 94965; (415) 331-9900. ■

New Cricket Draw includes color support for Mac II

BY RUSTY WESTON
MacWEEK Staff

MALVERN, Pa. — A new version of Cricket Draw with high-performance text handling and color support for the Mac II brings advanced new features and functionality to the mid range of desktop graphics.

At $295, Cricket Draw 1.1 from Cricket Software of Malvern, Pa., offers greater speed to utilize its strengths: easy-to-use, object-oriented drawing tools; PostScript; and special effects, including fountains and shading.

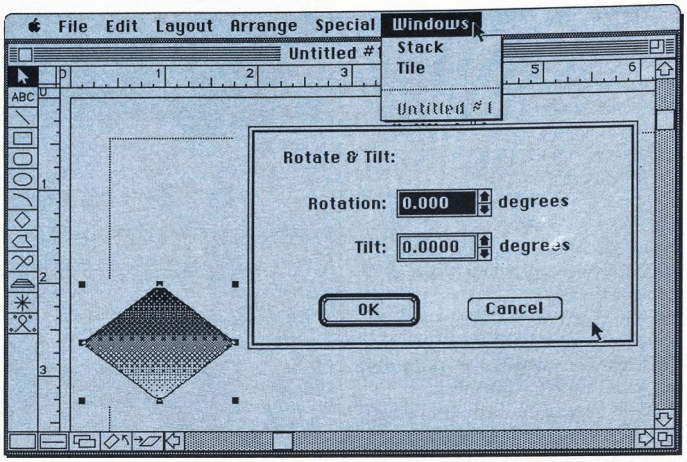
The knock against Cricket Draw 1.01 was that the program was sluggish, particularly when the special effects were employed. (See review, July 6.)

"That [criticism] was one of the big obstacles in getting out the first version," said Steve Hannaford, Cricket manager of product information. Speed was the priority in Version 1.1, he said, adding, "The new features are nice, too, and people using them will really enjoy it."

Hannaford said another new feature not to be overlooked is improved documentation.

In the new version, users can change the font, size and style of text in one or more blocks. Enhanced text features include word wrapping and binding text along curves and arbitrary paths. A new page layout display defines the printable area border and the paper's edge.

Other added features include scaling of bit-mapped images up to 200 percent, compatibility with Encapsulated PostScript files, full rotation of images, tilting and a windows menu that displays in stack or tile formats. Cricket Draw can import MacDraw and Adobe Illustrator files, among others.



Included in Cricket Draw's new features are full rotation of images and a windows menu that displays in stack or tile formats.

"We're not essentially in competition with FreeHand (Aldus' new illustration program) or Illustrator," Hannaford said.

The functionality of those high-end products differs from Cricket Draw, a program that builds upon MacDraw's ease of use, he said.

"Illustrator requires hand-eye coordination and a lot of training," Hannaford said. "Illustrator is for people who spend lots of time tracing line art. Our program is like a precise MacDraw."

Version 1.1 is shipping now, Hannaford said. The upgrade is available to Cricket Draw owners for $20.

Cricket Software is located at 30 Valley Stream Parkway, Malvern, Pa. 19355; (215) 251-9890. ■

Quick AIDS information in shareware stack

BY ELINOR CRAIG
MacWEEK Staff

LOS ANGELES — The most potent weapon in the war against AIDS is education. The Mac community is doing its part with AIDS Stack, a compendium of information about the disease in HyperCard form.

AIDS Stack, written by Michael Tidmus, a Los Angeles-based artist, designer and writer, is available on national computer bulletin board services, including CompuServe and GEnie.

The stack is divided into several sections: general information, common questions, symptoms, a glossary, a list of "hot line" resources, and information about the stack and its shareware beneficiary, Being Alive, a support organization for people with AIDS.

Apple is distributing the AIDS Stack, along with several other stacks, through user groups, according to Tidmus. The $20 shareware fee is a tax-deductible donation to Being Alive.

Windoid, The Apple-sponsored on-line newsletter for HyperCard users, said the stack "is an excellent example of how to use HyperCard as a powerful vehicle to move through diverse information."

The AIDS Stack is available by mail for $25 ($20 of which is tax deductible) by writing to ARTSAVANT, 832 1/4 South Mansfield Ave., Los Angeles, Calif. 90036. ■

WordPerfect for the Mac to ship in December

BY DANIEL RUBY
MacWEEK Staff

LAS VEGAS, Nev. — The long-awaited WordPerfect for the Macintosh will ship by the middle of December, WordPerfect Corp. announced here last week at COMDEX/Fall '87.

Originally scheduled for October, the December shipment will complete a lengthy development cycle. Early last year, the Orem, Utah, company scrapped its initial work on the project and restarted from scratch.

Roger Bell, WordPerfect's Macintosh marketing manager, said the developers are working to eliminate last-minute bugs.

"We want to make sure it goes out clean," he said.

The $395 Mac version incorporates many features of WordPerfect's PC word processor, including a 115,000-word speller, a thesaurus, footnote and endnote capabilities, table of contents and index generation, and automatic outline/paragraph numbering.

It also contains features not found in the PC version, including on-screen graphics and font changes, kerning, PostScript support and a page-preview function.

Some of these functions will be added in Version 5.0 of the PC product, which will ship in March 1988, the company said. WordPerfect also introduced DataPerfect, a full-featured relational database for the IBM PC.

Bell said it was likely that WordPerfect's Macintosh division would develop other products after the word processor was released. "You can look at what we are doing on the PC side and make reasonable assumptions," he said.

WordPerfect for the Macintosh will compete at the high end of the word processing market with Microsoft Word. Waiting in the wings is another much delayed program, FullWrite Professional from Ann Arbor Softworks, that will vie for the same market.

Bell said he believes WordPerfect will fare well against Word because "it is a serious word processor that is easy to use."

However, one beta tester is critical of some aspects of the program. He said the use of numbered submenus is "very un-Mac-like." He also said the restriction on program functions when text is selected was "irritating."

WordPerfect is located at 228 West Center St., Orem, Utah 84057; (801) 227-4000. ■

FOR THE RECORD

In the Oct. 27 issue, a news article titled "Developers consider porting to Windows," incorrectly stated that Guy Kawasaki, president of ACIUS Inc. of Cupertino, Calif., attended an OS/2 conference in Anaheim, Calif. Kawasaki said he was not present.

MacWEEK

EDITOR
Daniel J. Ruby

ART DIRECTOR
Laslo Vespremi

MANAGING EDITOR
Brenda Benner

NEWS EDITOR
Jonathan Littman

SENIOR EDITOR
Henry Norr (Reviews)

TECHNICAL EDITORS
Dale Coleman, Ric Ford (Boston)

SENIOR WRITERS
Abigail Christopher, Rick LePage (Boston)

ASSOCIATE EDITOR
Charles W. Hoblitzelle

ASSOCIATE ART DIRECTOR
Melody Kean Haller

ASSISTANT ART DIRECTOR
Gail Wagner

STAFF REPORTERS
Elinor Craig, Cliff Lehman, Jiri Weiss, Rusty Weston, Clair Whitmer, Jonathan Swartz

COPY EDITORS
Shari Lynn Allison, Charles Lenatti, Donna Peck

CONTRIBUTING EDITORS
John Edwards, Vernon Keenan, Lawrence Magid, Steve Rosenthal

BUSINESS MANAGER
Karen Brannan

ADMINISTRATIVE ASSISTANTS
Tamara Gargus, Michelle Gargus

INFORMATION DIRECTOR
Emily Brower

PRODUCTION DIRECTOR
Barri Klingaman

PROMOTION DIRECTOR
Cynthia L. Ahart

CIRCULATION DIRECTOR
William Hooven

PUBLISHER
Michael Tchong

ADVERTISING MANAGERS
William Peck (West), Brice Hereford (East)

Editorial and advertising offices: 525 Brannan St., San Francisco, Calif. 94107, (415) 882-7370. East: One Kendall Square, Cambridge, Mass. 02139 (617) 577-1033

Patch Communications
CHAIRMAN
Glenn E. Patch

PRESIDENT/CHIEF EXECUTIVE OFFICER
B. Burrell Patch

VICE PRESIDENT/CHIEF FINANCIAL OFFICER
Donald F. Welk

VICE PRESIDENT/BUSINESS DEVELOPMENT
Linda Rew

GROUP PUBLISHER
Richard F. Govatski

MacWEEK (ISSN 0892-8118) is published weekly, except for two weeks at year-end, by MacWEEK Inc. 525 Brannan St., San Francisco, Calif. 94107, a subsidiary of Patch Communications, 5211 S. Washington Ave., Titusville, Fla. 32780. Single copy price including postage: $5. One-year subscription rates: U.S. $75, Canada/Mexico US $150, International: US $300 (airmail). All orders must be prepaid. Subscription inquiries should be directed to the Circulation Department, 5211 S. Washington Ave., Titusville, Fla. 32780, or call (305) 269-2687. Application to mail at second-class postage rates is pending at San Francisco, Calif., and additional mailing offices.

MacWEEK is an independent journal, not affiliated with Apple Computer Inc. Apple and Macintosh are trademarks of Apple Computer Inc. Entire contents copyright © 1987 MacWEEK Inc. All rights reserved. Material in this publication may not be reproduced in any form without permission.

POSTMASTER: Send address changes to MacWEEK, 525 Brannan St., San Francisco, Calif. 94107. Please allow six weeks for order and address change processing.

BPA membership applied for April 1987.

Avatar and MacMainFrame are trademarks of Avatar Technologies Inc.
IBM is a registered trademark of International Business Machines Corporation.
Macintosh, Macintosh II and Macintosh SE are trademarks of Apple Computer Inc.

Come see us at Booth #125
MacFair • New York City
November 19–21 • The Exposition Pier • 55th St. & Hudson River

MAC MAKES OFF WITH IBM FILES

It sounded like a phony claim.

An insurance company was transferring files to IBM mainframes coast to coast and all points in between.

Without using IBM PCs.

And it wasn't just text, it was spreadsheets and documents too.

One name kept popping up – MacMainFrame.

Turns out MacMainFrame is a micro-to-mainframe link. And it had Mac uploading and downloading data to IBM mainframes before you could say 3270 connectivity.

Mac IIs and SEs were also in on the action.

They all did a pretty good imitation of a 3270 terminal to boot.

And for MacMainFrame, CICS, TSO and CMS environments seemed like the old neighborhood.

It appeared the insurance company's story was rock solid.

But was it just another 3270 connectivity solution? Hardly.

Instincts said this one had Avatar written all over it.

Avatar Technologies Inc.
99 South Street,
Hopkinton, MA 01748.

Avatar. All you need to know about 3270 connectivity.

800 289 2526
617 435 6872

Avatar®

SNAPSHOTS

Resource materials for HyperCard fans

SAN FRANCISCO — Training Resources Unlimited (TRU) and Walking Shadow Press have released information products for HyperCard devotees.

TRU of Federal Way, Wash., is scheduled to release the premier issue of its HyperNews stackware this week. The stacks will be available monthly on CompuServe, GEnie and other bulletin boards for no charge other than downloading fees.

The stack includes HyperCard news, stack reviews, tutorials, feature articles and interviews with HyperCard developers and users. HyperNews also contains a stackware catalog called HyperResources, billed as the first stackware-only clearing house.

The catalog includes product listings, descriptions and minireviews. The stacks can be ordered by phone or electronic mail for $5 plus shareware fees.

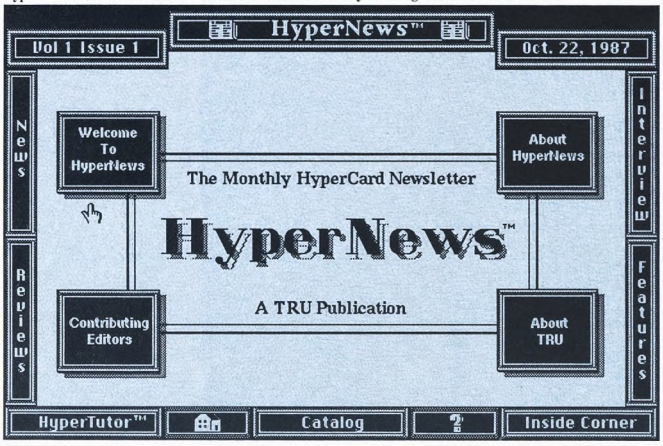
Walking Shadow Press of Saratoga, Calif., is offering a more traditional HyperCard news service called The Open Stack, a printed monthly newsletter.

The Open Stack features news, feature articles and two regular sections called Button of the Month and Script Ideas. Walking Shadow Press also has released "HyperCard Scripting: A HyperTalk Language Guide and Tutorial" by Jeff Stoddard for $16.95.

TRU is located at 31849 Pacific Highway South, Suite 15L, Federal Way, Wash. 98003; (206) 874-6760.

Walking Shadow Press can be reached at P.O. Box 2092, Saratoga, Calif. 95071; (408) 354-7833.

HyperNews stackware is scheduled to be released this week by Training Resources Unlimited.



Law professionals can add legal dictionary to Spellswell

MONTEREY, Calif. — Spellswell users interested in law and order now have a legal tool for their Macintosh. Working Software Inc. recently began shipping a legal dictionary for use with the company's spelling checker, Spellswell.

The package has a legal dictionary containing more than 20,000 words and abbreviations, a merge program and the standard 93,000 word Spellswell dictionary. The program allows unlimited additional word entries.

Intended for lawyers, legal secretaries, law enforcement and legislative professionals, law students and corporate legal departments, the product sells for $99.95.

Working Software Inc. is located at 321 Alvarado St., Suite H, Monterey, Calif. 93940; (408) 375-2828.

Small-business accounting package from Bedford

REDMOND, Wash. — Bedford Software Corp. is offering a six-module accounting package called Simply Accounting for small businesses.

The package, priced at $449, provides single disk access to general ledger, payables, receivables, payroll, inventory and job cost programs.

Simply Accounting will ship in late December, Bedford Software announced last week.

The program takes data posted in one module and immediately updates information in other modules.

Bedford Software Corp. is located at 15311 N.E. 90th St., Redmond, Wash. 98052; (206) 883-0074.

NuDATA markets 90-Mbyte hard disk for the Mac II

SANTA CLARA, Calif. — NuDATA has added its 90-Mbyte Data Cell 90i internal hard disk to its family of subsystems that includes hard disks, tape drives, removable media drives and file servers for the Mac II.

The $2,199 drive features 16.5 millisecond average access time.

The Data Cell 90i includes NuDATA's memory management software, including disk partitioning software, disk optimization software, Cell Spool spooling software for LaserWriter spooling and Omni Backup/Restore, which supports incremental, global or file-by-file backup, time-delayed backup and scripting.

The drive is shipped formatted with the standard Mac II 1-to-1 interleave and includes automatic head parking and a one-year warranty.

NuDATA is located at 3206 Scott Blvd., Santa Clara, Calif. 95054; (408) 727-1049.

Anatex handwriting recognition systems ship

LAS VEGAS, Nev. — Anatex Inc. announced here last week that its Personal Writer 15 S and Personal Writer 15 SL handwriting recognition systems for the Macintosh have started shipping.

Both products are designed to replace the keyboard and mouse, allowing users to control their Mac with their own handwriting and a pen. Handwritten words with unconnected letters are transcribed in the screen as typewritten text. Most software is supported, according to the company.

The PW 15 S is targeted primarily at the user whose needs are mostly in graphics, spreadsheet and database applications. The PW 15 SL adds more flexible text entry features.

The PW 15 S is priced at $895; the PW 15 SL is $1,795.

Personal Writer Inc. is located at 1801 Avenue of the Stars, Los Angeles, Calif. 90067; (213) 556-1628.

Human Intellect upgrades expert system shell

LAS VEGAS, Nev. — Human Intellect Systems last week announced an upgrade to its expert system shell, Instant-Expert Version 1.5, and dropped the price from $198 to $49.95.

Instant-Expert is a rule-based shell for the development of expert system applications, a form of artificial intelligence designed to emulate the performance of an expert.

An expert's knowledge is contained in the program in the form of if/then statements, plus inference strategies of forward and backward chaining.

Instant-Expert requires a Macintosh with 512 Kbytes or more of memory.

Human Intellect Systems is located at 1670 S. Amphlett Blvd., Suite 326, San Mateo, Calif. 94402; (415) 571-5939.

Flexible printer available from Brother

PISCATAWAY, N.J. — Brother International Corp.'s new M-2518 data processing printer is now available.

The printer, demonstrated last week at COMDEX/Fall '87 in Las Vegas, Nev., contains three features.

Paper Express, similar to a photocopying machine, allows the printer to run at 360 characters per second by aligning the printing on each copy of invoices and statements of up to six parts.

Paper Parking lets users switch between continuous forms and single sheets without removing paper from the tractor.

Touch and Print lets users select all printing enhancements via software controls because the M-2518 is Epson- and IBM-compatible.

The brother M-2518 costs $1,295. A dual-bin sheet feeder ($349), four-color ribbon ($39.95) and font card ($149) are optional.

Brother International Corp. is located at 8 Corporate Place, Piscataway, N.J. 08854; (201) 981-0300.

Printer management improves efficiency

WATERTOWN, Mass. — Digital Products Inc. last month introduced a line of departmental networking products designed to provide users with advanced printer management capabilities.

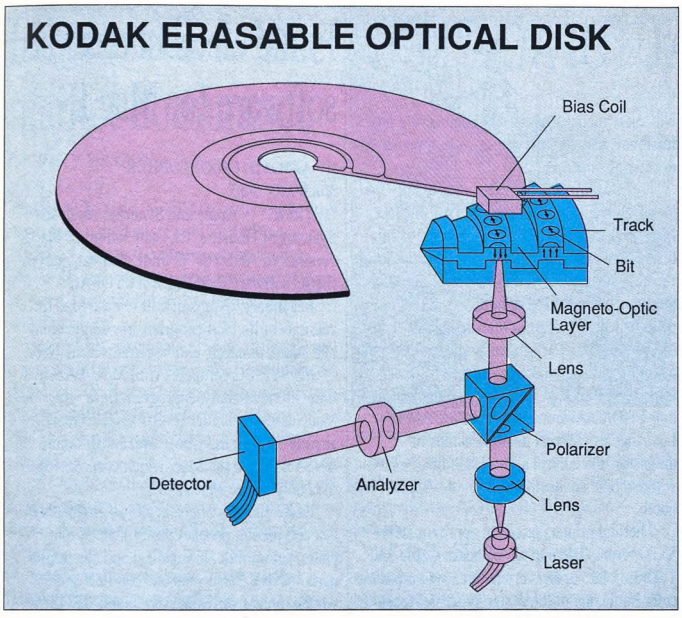
The PrintDirector Management Series (PD MS), MS-1 and MS-10, lets users produce high-quality documents more efficiently, said company President Cornelius Peterson.

Printer management capabilities in the PD MS series include a pop-up control feature that allows access to a library of preprogrammed printer control commands; support for soft and cartridge font selection; and Printegration, which allows the use of dissimilar printers through automatic conversion of escape codes by printer type.

The PD MS-1, an eight-port model with four serial and four parallel ports, is priced at $1,195. The PD MS-10, a 10-port model with either all serial or a combination of six serial and four parallel ports, costs $1,395.

Both products offer a 250-Kbyte buffer with an additional buffer of up to 2 Mbytes. They are now available.

Digital Products is located at 108 Water St., Watertown, Mass. 02172; (617) 924-1680.



Verbatim shows magneto-optical drive

BY JIRI WEISS
MacWEEK Staff

LAS VEGAS, Nev. — Imagine a floppy disk with a storage capacity of 50 Mbytes. Now imagine a half-height drive in your Mac that can access the disk at speeds approaching that of a Winchester.

Verbatim Corp., a division of Eastman Kodak Co. based in Sunnyvale, Calif., demonstrated such a drive at COMDEX/Fall '87 held here last week.

But hold your checkbook. The Verbatim/Eastman Kodak 3.5-inch Erasable Optical Drive still needs an OEM that will write the Macintosh driver. It may take a year before a commercial product is available, said Chandran Cheriyan, the drive's marketing manager. Sample quantities should be available this month with full production in early 1988.

The Verbatim SCSI drive is one of several magneto-optical products being developed by manufacturers such as Sony Corp. of Park Ridge, N.J., and Sharp Electronics Corp. of Mahwah, N.J.

A magneto-optical drive stores data on a disk composed of a rigid plastic substrate coated with a magneto-optical film. The drive records information on the disk by heating a spot on the film with a laser beam while applying a magnetic field. Heating the film makes it more susceptible to being magnetized.

Information is retrieved by shining the laser beam on the disk and measuring reflected light.

The magnetized film rotates the polarization of the laser beam, striking it clockwise or counterclockwise depending on the direction the film was magnetized, a phenomenon called the Kerr effect. A filter translates the polarization into light of different intensities that is picked up by a detector.

Besides storing large amounts of data in a removable medium, the magneto-optical disk drive has other advantages, according to Verbatim. The disk is more resistant to magnetic fields, and because the optical head flies more than 1 millimeter above the recording surface, head crashes are virtually impossible.

But there are drawbacks. To write over old data, the drive has to complete an extra erase pass. Still, the Verbatim drive achieves an average access time of about 70 milliseconds, faster than Apple's 85-millisecond internal 20-Mbyte drive for the Macintosh SE and II.

"The 70 milliseconds is for the worst case, for writes," said Cheriyan. "Most of the time the drive will be faster because 80 percent to 90 percent of operations on a micro are reads." He said the drive probably will cost less than $2,000 to be competitive with Winchesters.

Verbatim said it believes the new technology eventually will replace hard disks, but analysts remain skeptical.

"It may replace tape drives for backup ... But unless the drives improve their price and performance, I don't see much impact on Winchester disks," said Robert Katzive, vice president of Disk/Trend Inc. of Mountain View, Calif., a firm that analyzes storage media.

Robert Gaskin, a senior industry analyst with Dataquest, a market research firm in San Jose, Calif., said he also doubts that the new technology will stand up to hard disks. "The only things we think it will compete with are WORM (write-once-read-many) drives."

The main reason is the drive's slow data transfer, he said. The Verbatim drive will transfer data at 125 Kbytes per second. "Winchesters transfer data at 625 Kbytes per second; others [transfer at] more than 900 Kbytes [per second]," Gaskin said.

Katzive agreed. "The transfer rate does not matter for small files, but it becomes a nuisance when you are storing large ones," he said. The drive's performance, however, can be improved with more powerful and higher frequency lasers, he said. ■

Apple keeps MacTerminal development

Company retains 'core' system software

BY EMILY BROWER
MacWEEK Staff

CUPERTINO, Calif. — After Apple spun off its software subsidiary, Claris Corp., last summer, the new company appeared to be the sole beneficiary of all the original Macintosh software.

However, software development lingers on at Apple. MacTerminal, one of the first commercial communications packages for the Macintosh, was retained by Apple along with several other programs, including HyperCard, that are considered elements of Macintosh core system software.

"MacTerminal is part of our very robust communications product strategy. The program is a basic element in connections to mainframe environments," said Peter Hirshberg, marketing manager for desktop communications at Apple. "The program couldn't be decently evaluated outside of networked systems. MacTerminal's functionality is closely tied to decisions concerning systems issues."

There are no announced plans for the program, but one Apple employee indicated there may be updates. "MacTerminal needs to be improved. As a connectivity tool, we need to work on additional terminal emulations, like VT-200 or DEC terminal emulation," said Norman Klein, Apple product manager for hardware.

Mike Boich, one of Apple's original software evangelists and now president of Radius Inc. of Sunnyvale, Calif., and Apple programmer Martin Haberly wrote the program to provide VT-100 terminal emulation. VT-100 is a standard emulation used in most mainframe-based data applications.

"We were among the original Apple evangelists trying to get developers to write communications software for the Macintosh. There was an immediate need for terminal emulations, so we undertook the project ourselves, and our focus was to provide a faithful VT-100 emulation for communication with mainframe computers," Boich said.

Despite the program's strong terminal emulations, Boich acknowledges that MacTerminal is limited.

"We wrote the program so that it was at least adequate for searching CompuServe, and we added a file transfer protocol that was almost MacBinary. The most recent version of MacTerminal includes the MacBinary file transfer protocol, but it is still not competitive with sophisticated programs like MicroPhone (from Software Ventures Corp. of Berkeley, Calif.)." ■

13V"/14" Monitor for the Apple Macintosh II

Turn Your Apple Into A Diamond

The *Diamond Scan (AUM1371A)* from Mitsubishi Electronics is a 13V" auto-tracking color monitor fully compatible with the Apple® Macintosh™ II. Make the move to Mitsubishi® today for all your Macintosh II needs.

- Auto-tracking
- Apple mode: 640 x 480 resolution
- Applications for presentation graphics, training, CAD/CAM and more
- Accepts TTL, analog, or television-type NTSC signals
- Tilt and swivel base available

Mitsubishi Electronics America, Inc., Computer Peripherals Division, 991 Knox Street, Torrance, CA 90502. Telephone: (213) 515-3993, ext. 382.

MITSUBISHI ELECTRONICS

Apple is a registered trademark of Apple Computer, Inc.

Apple goes after engineering markets at AUTOFACT '87

BY JONATHAN LITTMAN
MacWEEK Staff

DETROIT — Apple has come a long way on its belief that easier also can be better.

This week at AUTOFACT '87, the nation's premier show for the automated and integrated factory, Apple will pull out all the stops to convince manufacturers and engineers that Macintosh users can accomplish even the most complicated design tasks easily.

Success for the Mac's fledgling appearance at this major engineering show — featuring 300 exhibitors and more than 25,000 attendees — will depend on whether Apple can convince major automotive, aerospace and engineering companies that the Mac offers viable software and network solutions such as solids modeling, finite element analysis, and Ethernet and DECnet connections.

But Apple also will be peddling the proven productivity of the Mac family and its marketing premise that about 70 percent of an engineer's work is not technical.

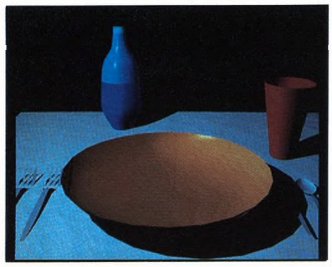
To drive this point home, Microsoft Corp. of Redmond, Wash.; Aldus Corp. of Seattle; and Interleaf Inc. of Cambridge, Mass., will demonstrate Excel, PageMaker and Interleaf Publisher, respectively, in Apple's booth.

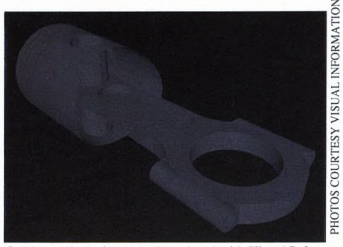
However, Apple will really be pushing the Mac II workstation and the design solutions available from third-party software vendors.

"Until now, no one has known that we were serious about going after the scientific and engineering markets," said Mike Homer, Apple's director of new business markets. "You have to remember that the Mac II has changed things. The Mac's small screen and lack of color was a barrier."

Apple's 30- by-50-foot booth, manned by 15 to 20 employees, will demonstrate how a piston connecting rod, one of the smallest parts in an automobile, can be created and taken through every design step on several Macs — right up to the milling of the part.

"Apple is showing that there are engineering solutions that go through the entire CAD/CAM process. That is a subtle but important issue to aerospace and automobile companies — connectivity — to pass drawings to and from other phases of the design process," said Scott Harlin, manager of marketing communications for Versacad Corp. of Huntington Beach, Calif.





PHOTOS COURTESY VISUAL INFORMATION

Solid models designed and rendered with Visual Information's Design Dimensions software on a Mac II.

Although proud of its engineering offerings, Apple readily admits the company has plenty of room for improvement.

"We need to get more strong vertically oriented solutions in [such things as] circuit simulation, structural analysis and 3-D solids modeling," Homer said.

But for now, Apple is betting that its proven track record in productivity will attract engineers. "More than half of what an engineer does is memos, presentations and reports," said Homer.

At AUTOFACT, 11 Mac software vendors will show manufacturing and engineering professionals how their packages work together on the complex project.

Four programs will do the grunt work. Design Dimensions from Visual Information Inc. of La Puente, Calif., will perform the initial design and visualization as well as the solid modeling of the piston. Finite element analysis testing of the piston's connecting rod will be done by MSC/PAL from MacNeal-Schwendler of Los Angeles. Two-dimensional drafting and detailing of the connecting rod will be performed by Versacad Corp. Finally, MGMStation CAD/CAM from Micro CAD/CAM of Los Angeles will plot the dimensions of the piston and control a small mill that will machine connecting rods in the Apple booth.

Thermal printers priced at approximately $5,000 from Calcomp of Anaheim, Calif., and Tektronix Inc. of Beaverton, Ore., will provide color hard copy of the design process. Houston Instrument of Austin, Texas, a division of AMETEK Inc., will demonstrate its DMP series of Mac-compatible plotters.

Other engineering systems in Apple's booth will include LabView automatic test-recording equipment from National Instruments of Austin, Texas, and AI-90 machine vision and robotics software from Automatix of Billerica, Mass.

Mac-to-DEC communications will be demonstrated on the MicroVax workstation from Digital Equipment Corp. of Maynard, Mass., with Alisa Talk from Alisa Systems of Pasadena, Calif. Apple will demonstrate its own Ethernet network, EtherTalk.

Apple's umbrella approach toward hardware and software vendors "offers the integrated solution that puts them ahead of IBM and Hewlett-Packard," said Nick Pavlovich, president of Visual Information.

The "386 machines are our primary competition. AutoCad (a CAD program sold by Autodesk Inc. of Sausalito, Calif.) sells in great volume," Homer said. ■

Finite element analysis software for Mac II

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

DETROIT — Apple and Swanson Analysis Systems of Houston, Pa., will announce Mac II versions of ANSYS-PC finite element analysis (FEA) software modules at AUTOFACT.

In January, Swanson will release Mac II versions of its FEA programs for applications like static, dynamic and heat transfer analyses.

ANSYS PC competes with MSC/PAL, a finite element analysis program from MacNeal-Schwendler of Los Angeles that already runs on the whole Macintosh family. ANSYS PC for the Mac, which costs $6,400, runs only on the Mac II.

Finite element analysis allows engineers to test and predict product performance of airplane, automobile, biomedical and electronics parts. ANBYS also runs on IBM PCs and workstations from Sun, Apollo and DEC.

"The lower-end Macs don't provide the performance we need for our software. The Mac II is the first machine Apple offered that makes finite element analysis practical," said John Swanson, president of Swanson.

Swanson will introduce a Mac II version of ANSYS-PC 4.3 that handles such stress analysis types as static, modal, dynamic response and random vibration in 3-D. These analyses are performed on models that the user can build from predrawn shell, solid, beam and pipe elements.

The ANSYS-PC FEA software uses its own menu system, deviating from the Mac interface. "We wanted the look of the program to remain the same among different platforms," Swanson said. "Features in the Mac and PC versions are perfectly identical, and the user interfaces are very similar." Swanson said.

Swanson will also port its ANSYS-PC/THERMAL 4.3, SOLID 4.3, and OPT 4.3 to the Mac II.

Swanson is located on Johnson Road, Houston, Pa. 15342-0065; (412) 746-3304. ■

Computervision to offer SPARC machine

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

DETROIT — Computervision will add its name to the growing list of Sun's SPARC users by introducing Sun 4/260 workstation configurations at AUTOFACT '87 here on Thursday.

Computervision of Bedford, Mass., a longtime OEM customer of Sun Microsystems Inc. of Mountain View, Calif., will offer workstations based on the 4/260 SPARC (scalable processor architecture) machines by the second quarter of next year, according to Tom Charland, Computervision media relations manager. "SPARC is Sun's way of moving with performance technology," Charland said.

Computervision's popular CADDS 4X software will run on the new 4/260-based machines, according to the company. Joint marketing agreements with Wavefront Technologies of Santa Barbara, Calif., and Silma of Los Altos, Calif., also will be announced.

Computervision will sell an interface between Wavefront's Image module and CADDS 4X. The $32,000 Image software also will be offered as part of a turnkey 4/260 system for applications such as styling, industrial design and presentation graphics.

Silma's CIMStation robotics and work cell design software will run on Computervision's Sun 3/260-based workstations as well.

"Users will be able to design work cells for robots using our CADDS 4X while simulating the [automated] work process on the factory floor with the CIMStation software," Charland said.

Computervision Corp. is located at 100 Crosby Drive, Bedford, Mass., 01730. (617) 275-1800. ■

Silicon Graphics to debut IRIS graphics processor

BY ABIGAIL CHRISTOPHER
MacWEEK Staff

DETROIT — At AUTOFACT this week, Silicon Graphics of Mountain View, Calif., will introduce its IRIS GT, a five-board advanced graphics processor for its IRIS 4D/60T and 4D/70 workstations.

The $25,000 IRIS GT replaces the boards originally designed for Silicon Graphics' high-end 4D workstation series and renders 60,000 Gouraud shaded, Z-buffered polygons per second, according to benchmarks conducted by the company. Other systems, such as the 4330 series of workstations by Tektronix of Beaverton, Ore., offer comparable rendering speeds.

"Our new (IRIS GT) architecture employs a high level of proprietary VLSI technology and massively parallel processing structure," said Jim Clark, Silicon Graphics' founder and chairman of the board.

Competing with the Pixar Image Computers from Pixar of San Rafael, Calif., the IRIS GT provides alpha blending, which allows users to define the transparency of an object and while manipulating it interactively in 3-D space, blend it with objects or backgrounds on the screen.

The GT also provides simultaneous display of more than 16 million colors in double and Z-buffered modes; hardware-based lighting models that provide infinite, local and colored lighting sources; and multimode windowing.

The GT, which will ship in volume next April, is upwardly software compatible for users of the company's lower-end IRIS workstations.

Silicon Graphics Inc. is located at 2011 Stierlin Road, Mountain View, Calif. 94043; (415) 960-1989. ■

Esber predicts Mac market dominance

BY RUSTY WESTON
MacWEEK Staff

TORRANCE, Calif. — File this under statements you're unlikely to read in BigBlue-WEEK: "I believe the Mac is on the leading edge of PC technology in both hardware and software," said Ed Esber, CEO and chairman of Ashton-Tate.

MacWEEK asked Esber, 34, to elaborate on a recent talk he gave to the Software Publishers Association in Boston where he discussed how the Mac, with its graphical user interface, could become the corporate microcomputer standard.

"If Apple continues on its present course of innovation, I believe Mac market share can exceed the market share of IBM," Esber predicted.

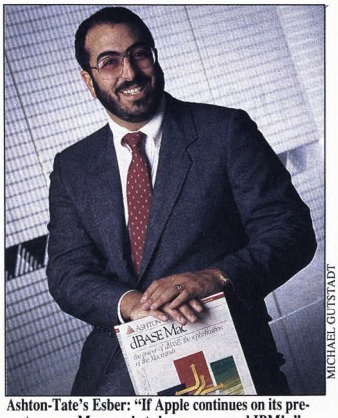
Peter Rogers, a securities analyst with Mabon, Nugent, a New York investment bank, agreed with Esber, saying that the Mac interface is superior but questioned whether the Mac will overtake IBM in PC market share.

"Certainly not in this decade," Rogers said. "Generally, Mac will continue to take DOS market share, but the machine of choice, that's pretty loose."

Ashton-Tate recently introduced dBASE Mac, a database redesigned to take advantage of the graphical interface. Esber said he prefers the Mac version over the character-based IBM-compatible dBASE Plus.

"Most of my revenue continues to come from the IBM platform, but that's not to say I'm not a strong Apple supporter," Esber said of his $260 million a year corporation. "I use a Mac primarily in my office. I still use the IBM PC or compatibles to do most of my word processing because I do most of it on a plane. I think all the hardware vendors understand the balance we have to make, but I don't think they expect us to suppress our preference. We're making a decent living off IBM products. What can I say?"

Software analyst Brian Mutert of Robertson, Colman & Stephens in San Francisco expressed surprise at Esber's on-the-record remarks. "So much of his revenue stream revolves around the IBM platform," Mutert said.



MICHAEL GUTSTADT

Ashton-Tate's Esber: "If Apple continues on its present course, Mac market share can exceed IBM's."

Mutert noted that sales of dBASE Mac are brisk and that the database may occupy a separate shelf from ACIUS' 4th Dimension program.

"I see dBASE Mac as having particular attributes for operations that are going to rely heavily on ease of use and full range of use by an end user — without the intervention of a database programmer," Mutert said. "In contrast, I see 4th Dimension appealing more to the heavy-duty database developer who will be writing programs for use by others also incorporating the Mac's ease of use."

Esber's commitment to the Mac market will soon take the form of a spreadsheet, code-named Glass, sources said. "We have made no public announcement for any additional Mac products, but dBASE Mac is the first in a series. We decided to lead with our strength, database," Esber said. But the company is diversifying its PC line, too. Recently, the company issued Byline, a page layout package for the PC.

But Esber really likes the Mac. "The masses continue to follow IBM, but the real pace of the business has been set by Apple and DEC, which have a 12- to 18-month edge they need to sustain," Esber said. "When you think about it, a lot of what will be possible in the OS/2 world in late '88 or '89 is already possible with the Mac today."

Esber has made it clear that if the Mac rises to the top of the PC heap, he's going to ride tall in the saddle.

"The only goal for any software company is to be dominant. Nobody plays to be No. 2," he said. ■

Excelan reports record net income

BY JON SWARTZ
MacWEEK Staff

SAN JOSE, Calif. — Excelan Inc. last month reported record net income of $1.18 million, or 13 cents per share, for the third quarter ending Oct. 3, an increase of 137 percent from the $496,000, or 7 cents per share, earned in the third quarter of 1986.

Sales and other operating revenues totaled $10 million for the third quarter of 1987, compared with $6.3 million in 1986.

For the first nine months of 1987, net income was $2.97 million, or 34 cents per share, compared with $1.11 million, or 16 cents per share, in the same period of 1986.

For the nine-month period, sales and other operating revenues amounted to $27.6 million, compared with $16 million in the first nine months of 1986.

All financial results from the LAN company include those for Kinetics Inc. The Walnut Creek, Calif., maker of network products for the Mac was acquired by Excelan in August. ■

Apple donation links social agencies

Hungry and homeless get a helping hand from HandsNet

BY JONATHAN LITTMAN
MacWEEK Staff

CUPERTINO, Calif. — In a week that saw Wall Street crash and Apple's stock sink, the company that believes in "making a difference" donated a quarter of a million dollars worth of Macintosh goodies to organizations that serve the homeless and hungry as part of a project that will enable Apple to study use of its AppleLink technology in a non-commercial environment.

Teaming up with USA for Africa/Hands Across America, Apple will link 50 state and national organizations for the hungry and homeless through its proprietary network, AppleLink.

The electronic mail and bulletin board network HandsNet will help provide critical information on perishable surplus food, allowing food bank operators to coordinate trucking for efficient pickup and distribution.

In addition, the network will distribute demographic and statistical information on poverty, cost of living indices and census figures, assisting tens of thousands of hungry and homeless people in finding jobs and permament housing.

In its largest telecommunications grant to date, Apple's corporate grants department is providing $250,000 worth of Mac SEs equipped with hard disks, modems and ImageWriter IIs to 48 California-based programs and two agencies in Washington, D.C. Apple also is partially subsidizing AppleLink access for the charitable organizations. Hands Across America is funding the network with a $140,000 grant to the California Organizing Committee. The committee proposed HandsNet to Apple, and if the one-year pilot project takes off, it may go national.

Apple's high-tech generosity couldn't come at a more critical time. Even before the Wall Street crash, the richest state in the nation was swelling with more needy individuals by the hour. Nearly 2.3 million people rely on emergency food charities each month. Estimates on the number of homeless people in California range from 50,000 to 250,000. And as the problem spreads, Congress and the president are planning drastic cuts in the budget.

"This innovative and collaborative effort represents a major breakthrough of modern technology to social service work," said Sam Karp, coordinator of the California organizing committee and head of the HandsNet project. "We hope that what we learn with this pilot program will help service groups throughout

See HANDSNET, Page 12

35V"/37" Monitor for the Apple Macintosh II

The Big Apple

The XC3710SS from Mitsubishi Electronics is a 35V" auto-tracking color monitor fully compatible with the Apple® Macintosh™ II. Applications for presentations, training, CAD/CAM and more. Make the move to Mitsubishi® today for all your Macintosh II needs.

Mitsubishi Electronics America, Inc., Computer Peripherals Division, 991 Knox Street, Torrance, CA 90502. Telephone: (213) 515-3993, ext. 382.

MITSUBISHI ELECTRONICS

Apple is a registered trademark of Apple Computer, Inc.

Microsoft expands $9 million book unit

BY RUSTY WESTON
MacWEEK Staff

REDMOND, Wash. — Microsoft Press, a low-profile publishing house tucked inside the X-shaped office buildings of the world's leading software company, has quietly built up $9 million in annual sales of technical books ranging from CD-ROM to extended product manuals.

Under a separate trade imprint, Tempus Books, is nibbling at a wider audience with this month's reprint of the cult classic "Computer Lib" ($18.95 softcover) by the irrepressible father of hypertext, Theodore Nelson.

In the spring, Tempus Books plans to release Robyn Shotwell Metcalfe's "Soviet High Tech Espionage" ($17.95, cloth cover), an expose of the illegal transfer of American high technology to the Soviet Union.

Microsoft of Redmond, Wash.,will spend $100,000 in advertising to launch the new line of Tempus books. The move hardly seems worth it when you weigh the potential profit of a software program — witness $100 million revenue in Microsoft's first quarter of fiscal 1988 vs. sales of 36 books each year.

One analyst said: "Books sell for $20; software sells for $500. Guess which one is more expensive to manufacture? The book. It's more expensive to develop software, but cheaper to reproduce."

"Our goal is to do more than $9 million in 1988," said Min S. Yee, the 49-year-old former newsman, now publisher of Microsoft Press.

"We like to focus on our own products. We believe it will help leverage sales, but we're also here to have revenue from selling books. Look at content, design and editorial. We do the best books in the business," Yee said.

"Publications is an unheralded portion of the software business because it's a small revenue stream," said analyst Brian Mutert of Robertson, Colman & Stephens, a San Francisco investment bank. "But with complicated products like Excel, the publications department is very important," he said. "Specialized books are extremely valuable sometimes."

Yee, who uses a Mac II, said 24 computer-related books will be published annually by Microsoft Press plus 12 science-technology books by Tempus Books.

"To compete with a Bantam or Random House, you have to go after a lot of major fiction and writers," Yee said. "Our goal is simply to be the best computer-book publishing house."

For the week ending Oct. 16, Microsoft Press had the third and eighth best-selling computer books at B. Dalton Bookseller — two DOS books by Wolverton. The best seller was "The Complete HyperCard Handbook" by Danny Goodman, published by Bantam Books.

According to Waldenbooks, Microsoft Press had the third, fourth and fifth top-selling computer books.

"We operate just like a general publishing company," said Karen Meredith, Microsoft Press publicity manager.

Microsoft Press is a self-contained publishing house, with Magna PC-based desktop publishing and in-house printing with three full-time typographers. Books are proofread on laser-printer copy and designed by an in-house staff.

Microsoft Chairman Bill Gates founded the book division in 1983 and the first text, "The Apple Macintosh Book" by Carry Lu, was published in 1984. In all, Microsoft has published 75 books, three under the Tempus imprint.

Mac books don't sell like MS-DOS books, Yee explained. "We find that our DOS books are selling a lot better, unless it's a complicated kind of book about Excel macros or something. Really, if you look at a Mac, you don't need much to learn how to use programs," he said.

Booksellers are encouraged because Tempus Books pays a finder's fee of $500 if it publishes a suggested out-of-print science or technology title.

"Microsoft has nice people who are more concerned with quality than is common in the computer publishing industry today," Nelson said in praise of his new publishers.

But the story he tells of his initial dealings with Microsoft Press before Yee arrived in 1984 "is not terribly pretty or complimentary."

"They gave me a very short deadline and said they wanted a 50 percent rewrite of a 295,000-word book," Nelson said. "That didn't work, so they canceled."

Yee said, "I just think it's a unique book, a cult classic and there's a great reservoir of warmth and feeling toward the book, which was out of print. But there's a lot of new material in it."

As Nelson said, "This is a time whose book has come." ■

Apple lands IIGS deal to supply Defense

BY RUSTY WESTON
MacWEEK Staff

CUPERTINO, Calif. — Apple officials can prove the Apple IIGS is alive and well and floating better than the dollar in foreign markets.

Apple last week announced a $28 million sale to the Department of Defense Schools System to equip 160,000 children of military personnel overseas.

Computer Dynamics Inc. (CDI) of Virginia Beach, Va., a systems integrator, support services and training company, made the selection for 270 schools for dependents of American military personnel throughout 23 countries in Europe, Central America and the Far East.

"With CDI's [seven-year] track record for service and support and the innovative solution the Apple IIGS offers, the CDI/Apple team can strongly support the DODSS commitment to place computers in schools worldwide," Wes Gibson, CDI's senior vice president of marketing, said in a prepared statement.

"We believe the color, graphics and sound of the Apple IIGS, with its growing library of educational software, will enhance the learning process for teachers and students alike," said Charles Berger, Apple's vice president for market development.

"Apple's experience in education and its presence internationally should serve to support CDI and DODSS in their efforts to place computers in classrooms throughout the world," he said.

Apple initially will send 1,700 units of the Apple IIGS, which in recent years has incorporated the interface and the mouse known to Mac users.

The most unusual facet of the IIGS integration involves MS-DOS. Apple officials said the IIGS will also run MS-DOS. This marriage made in military red tape heaven is achieved by utilizing PC Transporter, an MS-DOS emulator card from Applied Engineering.

In total, Apple said the five-year CDI contract will include more than 4,000 Apple IIGS 768-Kbyte systems with color RGB monitors and 3.5-inch and 5.25-inch floppy disk drives. ■

HANDSNET

Continued from Page 11

the United States that are interested in integrating high technology into their daily operations."

In addition to the social value Apple sees in the project, the company that makes the computer for the "rest of us" sees technological lessons to be learned.

Traditionally, Apple has limited its 2-year-old AppleLink network to its employees, dealers, developers, educational institutions and user groups. Expanding the network to shelters, churches and food providers will help Apple understand network dynamics of large groups. HandsNet will enable Apple to study the viability of E-mail and bulletin boards in a very different, new environment: social services.

Major software vendors have joined in the giving spirit. Copies of Microsoft Works and training packages from Layered Inc. were donated to HandsNet. Interactive Network Technologies, Solana Electronics, Sand Hill Engineering, Quasitronics Inc. and Barnett Associates also donated their wares.

Karp approached Apple for the grant because he used a Macintosh at home and found the technology "simple, easy to use and direct."

Marty Rogol, executive director of USA for Africa/Hands Across America saw a ready match between Apple's progressive corporate culture and his highly visible philanthropic group.

And why didn't Karp bother to approach IBM for the grant?

"If I didn't convince Apple, I couldn't convince anybody," he said. ■

CALENDAR

NOVEMBER

16-17 — **Datagram 1987 Electronic Publishing Conference** (Bedford, Mass.)
Conference will focus on "Unlocking the Market — the Acceptance Factor." Panel discussion includes topics such as adapting technology to the publishing process, desktop publishing, office systems, dedicated publishing, strategic systems architectures for electronic publishing and page description language standards. Contact: Dataquest at (408) 971-9000, ext. 501.

19-21 — **MacFair** (New York)
Intended for all levels of users from the corporation to the student buyer. Day-long workshops will include such topics as publishing, music composition, advertising and design, health care, and securities and architecture/construction. Ten pre-show workshops for corporate users will be held Nov. 18. Contact: American Expositions Inc. at (212) 226-4141.

19-22 — **imPACT! '87** (Hong Kong)
Jointly sponsored by The Seybold Group and ProjectAsia, the event will focus on the Asian Pacific Rim market. It will include a four-day Seybold Seminar-style conference and a major equipment exposition. Exhibitors will represent the electronic publishing market from the United States, Europe, Japan and other Pacific Rim countries. There will be discussions of the latest publishing technology and a special session devoted to software piracy and what to do about it. Contact: Jonathan W. Seybold at (213) 457-4704.

21 — **Seminar on HyperCard Programming** (Santa Clara, Calif.)
Sponsored by the Software Entrepreneur's Forum, this is the first technical seminar for stackware developers. Program will focus on the HyperTalk environment, Apple's product strategies, interface routines, communications, and command and function strategies. Dan Winkler, Danny Goodman and several Apple representatives will attend. Contact: SEF at (415) 854-7219.

DECEMBER

1-3 — **Optical Information Systems** (New York)
Sponsored by Meckler Publishing, the conference will include technical seminars and vendor exhibits on CD-ROM, WORM technology and erasable optical disks. There will be three pre-conference technical tracks on November 30. Contact: Marilyn Reed at (203) 226-6967.

7-8 — **Datapro's Electronic Publishing: Strategies, Applications and Systems** (New York)
Two-day course aimed at corporate users on how to apply applications in electronic publishing. Contact: Datapro Research at (800) DATA-PRO.

Send calendar events to: Clair Whitmer, MacWEEK Calendar, 525 Brannan St., San Francisco, Calif. 94107.

Apple competition from 'The Pit'

Citizen's Telephone developing Mac fax modem

BY FRED TERRY

Special to MacWEEK

HIGGINSVILLE, Mo. — In a small basement room affectionately named The Pit, three men — Jeff Backes, Doug Troxell and Tom Vandiver — labor to complete the software for a Macintosh fax modem. But The Pit isn't in a Cupertino or Sunnyvale, Calif., basement; it is under Citizen's Telephone Co. in Higginsville, Mo.

"The Pit originally held the batteries for the stepper-switches and was used as a break room. Of course, people didn't take very long breaks," quipped Backes, "since the hum of the batteries could drive you crazy after 10 minutes. When the phone company was deregulated, Citizen's converted to digital circuits and pulled the batteries out of the room. They had to cut a hole in the ceiling to get them out."

Citizen's is an unusual combination of telephone company, Apple-authorized dealer and Apple-certified developer.

JULIE ROBERTSON

Allen Bear, manager of Citizen's Apple dealership.

Backes was first hired by Citizen's as a weekend salesman. He was running the computer center at the University of Missouri in Columbia at the time and, needing an Apple dealer, went to Citizen's, where he met Allen Bear, manager of the Apple dealership.

When Citizen's discovered that Backes could program, he was promoted to programmer and began developing an accounts-receivable package for newspapers in Blyth Software's Omnis 3+ database. Called the Classifier, the package lets operators key in classified advertisements as they come over the phone and exports the advertisement in Knowledge Engineering's JustText format.

During this time, Backes heard about another programmer in the area who was a high-school student and an Apple certified developer. He met Troxell at a users' group meeting. Troxell was writing an adventure game called MacFerno in MPW Pascal and working part time for one of Citizen's clients.

"The next time I saw Doug," said Backes, "he was sitting behind a Macintosh messing with one of my databases."

"I was trying to fix it," prodded Troxell.

"Sure you were. Anyway," continued Backes, "I came back to Citizen's and suggested that they hire Doug. They squawked a lot about that. Said we couldn't hire him away from our client. But they did. Then I convinced them to give us The Pit so we could isolate ourselves from client phone calls and devote our time completely to programming."

Citizen's is wired from top to bottom with AppleTalk cable. The secretaries field all of the phone calls and send messages down to The Pit over Microsoft's InterMail.

Not long afterward, Citizen's hired Vandiver, one of Backes' students at UMC. "I had worked with Tom and knew that he was good. He's really helped with the Omnis work while Doug and I have been working on J.T. Fax," Backes said.

When Asher Technologies Inc. of Norcross, Ga., announced its IBM fax modem, Backes asked Asher if it was working on a Mac version. Asher said it wasn't, and Backes offered to write the Mac software. After several exchanges, Jan Ozer, general manager of Asher's fax division, called Backes, and the two arranged for Citizen's to write the software.

Asher has demonstrated a version of the J.T. Fax that can send a fax. The company plans to show a fully functional model at the Mac Expo in San Francisco in January.

The J.T. Fax software is a printer driver. "We wanted the software to be unobtrusive, so we chose a printer driver," Backes said. When you want to send something, you open the Chooser and select the J.T. Fax icon. Then you only have to select Print from the menu to send something to another fax machine. Besides being easy to use, the printer driver and fax modem combination lets you transfer documents to another machine without making a paper copy of your document.

"That gives an image you can modify," said Troxell.

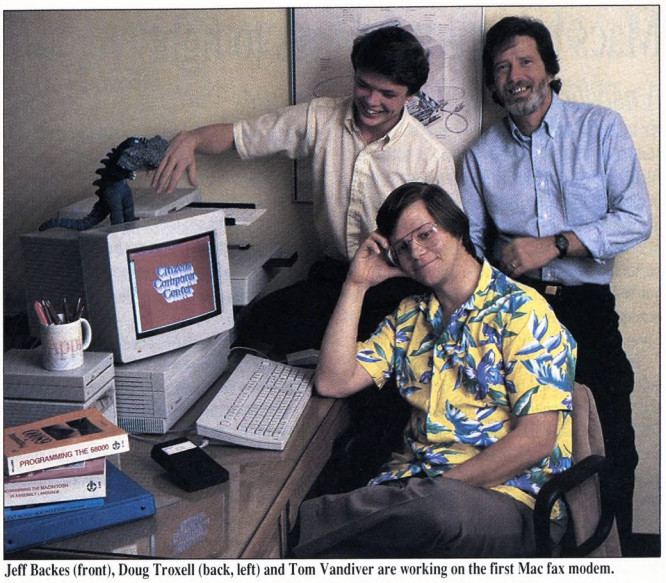
"And the fax on the Mac allows you to have ImageWriter output almost as good as from the LaserWriter," added Backes.

J.T. Fax is written in MPW Assembler and Pascal. Troxell writes the Pascal code and Backes writes the Assembler hooks. They have christened their approach to software development "tag-team programming."

"Whenever you get stumped, you let the other guy look at your code. What isn't obvious to you is to the other guy," Troxell said. "There is more teamwork than using modular techniques."

Vandiver was not left out of the development process. "We didn't even realize that Tom was an artist," Backes said. "Doug and I wanted a custom icon, but we didn't have any ideas. The next day Tom came in with six pages of icons. After that, we added pixel graphics to his list of duties. He's responsible for designing the user interface."

Are they worried about Apple's impending release of its fax? "When Apple announced its fax, I wore a black arm band around here for a week. We were already a month into writing the program. I have never been a believer that competition is good, but I think this will force us to get a better product," Backes said.



JULIE ROBERTSON

Jeff Backes (front), Doug Troxell (back, left) and Tom Vandiver are working on the first Mac fax modem.

As manager of Citizen's Apple dealership, Bear provides the marketing for the J.T. Fax. He said he isn't worried about the competition or an installed base of fax machines.

The guys in The Pit are busy planning how to make the most of the MultiFinder's multitasking environment. "Jeff wants a DA (Desk Accessory), and I want a stand-alone application," said Troxell. "It'll be great to be working along and be told: 'Receiving a fax.' Then, whenever you want, you can open the fax and see what it is." ■

19V"/20" Monitor for the Apple Macintosh II

Apple Crisp

The C6922AGK from Mitsubishi Electronics is a 19V" color monitor fully compatible with the Apple® Macintosh™ II. Make the move to Mitsubishi® today for all your Macintosh II needs.

- Crisp, clear, colorful
- Apple mode: 640 x 480 resolution
- Super high contrast glass improves viewability
- High resolution for CAD/CAM applications
- Tilt and swivel base available

Mitsubishi Electronics America, Inc., Computer Peripherals Division, 991 Knox Street, Torrance, CA 90502. Telephone: (213) 515-3993, ext. 382.

MITSUBISHI ELECTRONICS

Apple is a registered trademark of Apple Computer, Inc.

Macs bring good things to light

A network links scattered GE facilities

BY ELINOR CRAIG
MacWEEK Staff

BRIDGEPORT, Conn. — Deep in the interior of General Electric's Bridgeport, Conn., facility a hub of Macs hums busily, the brainchild of Price Collins, GE's program manager for personal and microcomputers. The network hub links Macs and PCs between the corporate headquarters in Bridgeport and Fairfield, Conn., 10 miles away.

In Bridgeport, a huge string of red brick buildings connected by a single corridor appropriately symbolizes a company, such as GE, with as many faces as computer needs. Each location serves a different function: a management center, a light bulb factory, a wire manufacturer.

Collins manages product technology for the Corporate Information Technology (CIT) division for the entire company. Every day his team evaluates hardware and software for thousands of personal computers.

The Bridgeport contingent of CIT, about 60 people, concentrates on the use of computers throughout GE. The rest of the 850-member team is principally operational and support staff for computing activities, in a sense, a corporate MIS service.

"We worry about everything from the Cray we bought — 'Should we have bought a Cray ...' — down to the personal computers that we use," said Collins.

The Bridgeport fortress, a block of brick, was originally a factory for Remington Arms. It was built in the early 1900s by 2,000 Russian serfs shipped from Siberia to help fulfill the czar's urgent need for more weapons. "After the unpleasantness of 1917, the czar's contract with Remington lapsed just as GE was looking for something larger," said Collins.

The main function Collins and his team perform is testing and researching new software and hardware for the personal computers throughout GE. "We publish the results for reference use throughout the company," said Collins. "GE is a recommending corporate culture rather than a directive culture. We don't make large-scale purchases on behalf of the whole company, except in a few cases in the software area."

The recommendations carry a good deal of weight, though, because of the amount of testing and research that goes in before a decision is made. Publishing the results saves time for the users, who read the summary and make a quick decision.

"The typical end user does not want to do the same kind of research to back up the purchase of non-recommended software. We try not to reinvent the wheel at each location," Collins said.

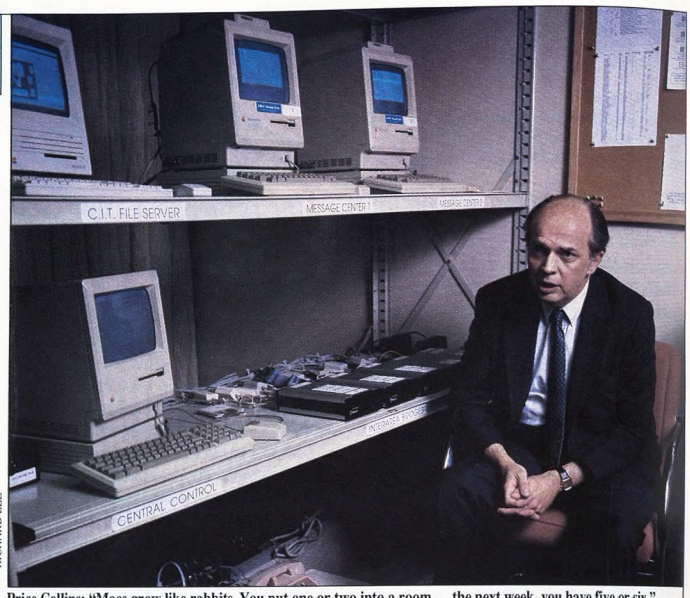
Collins works with the purchasing department, affecting national contracts with its largest vendors. But the final decisions for acquisitions remain in the hands of the local divisions.

"I know Peat Marwick has centralized quantity-buy hardware and software that is used throughout the company," said Collins. "But it is vital that the standardized spreadsheet template is used by all the staff. Peat Marwick is one business nationwide, however. GE is a different company at each plant with different staff needs and requirements. It is unlikely to find the same set of solutions that work from one place to another."

This diversity makes GE an ideal beta-test site. And Collins actively seeks out beta-test opportunities. "It is a symbiotic relationship," he said. Even if he sees the product only weeks before it ships, he can get a sense of its potential applicability to his user community.

"Conversely, if we can participate over a six-month period, we can have some impact on features and functions," he said. "Whatever the case, it enables us to be timely in our recommendations."

Keeping the engineers and managers up to speed on computing is within Collins' jurisdiction as well. Twice a year, PC coordinators from each GE location meet to exchange information. The coordinators are in charge of acquisition, installation, user assistance and general support for their facilities, some of which have several thousand personal computers.



RICHARD LEE

Price Collins: "Macs grow like rabbits. You put one or two into a room ... the next week, you have five or six."

For engineers and engineering managers, Collins publishes a bimonthly newsletter featuring high-tech talk on hardware and software and recommendations about using applications and various computer products made by GE.

For the past three years, Collins has been quietly cultivating the use of the Mac at GE. He said there were probably only a handful of Macs before his arrival.

"Macs grow like rabbits. You put one or two into a room and you come back the next week, you have five or six," said Collins. But it didn't take Collins long to change that.

With the introduction of the Mac has come the introduction of LANs. IBM LAN technology has been in a state of flux, said Collins, "so GE has been reticent to install them." Now, he said, if just one person has a Mac and a LaserWriter, a LAN will soon follow. People realize they can hang on more Macs and have the whole office talking to one or two LaserWriters. With the addition of one Mac, the office is on electronic mail ... the rabbit syndrome.

Increasingly, Collins has focused on the Mac II as the recommended office tool. "We originally had thought the SE would coexist with the II, larger power users on the II, general office use on the SE," he said. "But we are finding that secretaries are making such useful work on the II with the larger screen and the greater capacity that we are now recommending the Mac II as the machine for everybody [at GE]."

While Apple's impact on GE clearly shows in the changed computer makeup, GE is influencing Apple. Jeff Ehrlich, Collins' boss, is one of 10 executives from Apple's largest accounts who make up the business advisory council at Apple.

Collin said he thinks the Mac's typographic capabilities and ease of use help users achieve more professional results.

"People can put their thoughts and words into such a finished form that suddenly they take tremendous pride in their work," he said.

Collins said the Mac really took off at GE when the battle of the view graphs began. One manager who produced his graphs with a Mac and a LaserWriter was the envy of others who were using dot-matrix output for theirs.

"The managers would go back to their secretaries and say, 'I don't know what Joe across the aisle has, but get it in here.' He was much surprised and a little distraught when a bunch of Apple equipment arrived shortly thereafter. But I can't overstate the fact that it was the battle of the view graphs among the managers that got the Mac into GE," he said. ■

Making the GE connection

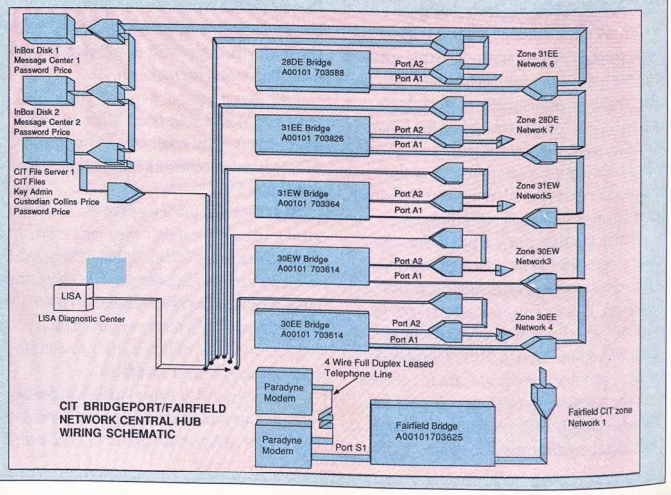
To connect General Electric's Bridgeport and Fairfield locations, the company is using AppleShare and InBox from Think Technologies Inc., on both Macs and on IBM PCs. The two locations are connected with a full duplex dedicated telephone line.

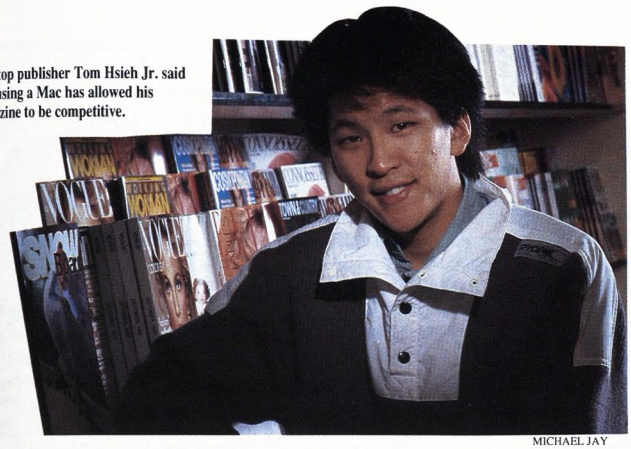
Price Collins, manager of product technology for the Corporate Information Technology (CIT) division, has networked 100 personal computers with three InBox message servers and one AppleShare file server on a central hub. "I stumbled on this configuration and it seems to have better performance," he said. "Typical AppleTalk networks, we find, can go up to 25 devices having a mix of Macs, IBMs and LaserWriters."

GE employees make extensive use of the electronic-mail system. "I have seen a document whiz around the network for editing and approvals, each person dotting an 'i' and crossing a 't.' Only at the end when the person is going to sign does it get printed out," he said.

There is one other central Mac on the hub. It gives CIT workers the chance, through switching arrangements, to actually become part of any of the AppleTalk networks. They run diagnostic software with this dedicated Mac, principally those from Farallon Computing — the same people who put out PhoneNet, which is one of the technologies used in addition to the AppleTalk wiring scheme.

To hook up multiple AppleTalk networks he uses Hayes bridges and one Solana bridge for home users to dial into. — *By Elinor Craig*





Desktop publisher Tom Hsieh Jr. said that using a Mac has allowed his magazine to be competitive.

MICHAEL JAY

Mac gives young publisher the edge

BY CLIFF LEHMAN
MacWEEK Staff

SAN FRANCISCO — The Union Square offices of International Snowboard Magazine are a jumble of two worlds. Two dozen snowboards lining one wall give it the feel of an Alpine equipment shop, but the light tables, phones and Macintosh definitely say magazine. Both worlds have given budding publisher Tom Hsieh Jr. some wild rides.

Three years ago, when 22-year-old Hsieh founded International Snowboard Magazine, his only intent was to publicize the sport he loves. That love, plus liberal amounts of determination and a healthy dose of desktop publishing magic, have turned Snowboard Magazine into a publishing success and provided Hsieh with a career.

Snowboarding is an upscale version of its older cousins, surfing and skateboarding, and a more distant relative of traditional skiing. The sport consists of careening down snow-covered mountains on a single board that is roughly twice the width of conventional skis.

The magazine's first issue was pieced together on a typewriter with the crudest of cut-and-paste production techniques in Hsieh's San Francisco apartment. It took nearly a year to produce the magazine, which carried no ads. Costs came out of Hsieh's pocket.

"A printer gave me guidelines to do production," Hsieh said. "He told me what a light table and a gray scale were. I bought a camera and got friends in Colorado to write.

"I asked a lot of people how to do it. It was like groping around in the dark until I found the right answers," he said.

Two of the right answers were the Macintosh and the LaserWriter. Without them, Hsieh said, his magazine could not compete with the larger and more experienced publications that are beginning to cover snowboarding.

"The Mac creates the magazine. If it weren't for the Mac, the magazine wouldn't exist today," Hsieh said.

The sport and the magazine attract action-oriented skiers, Hsieh said. "These are extreme skiers, not recreational skiers," he said with a touch of scorn for the traditional ski scene.

Snowboard Magazine's readers average about 22 years of age, but they range from 15 to 65, according to Hsieh. "I'm convinced this sport is here to stay," he said.

However long readers stay with the sport, right now they draw enough advertising revenue to more than cover overhead for printing, staff salaries and freelance writing, Hsieh said.

And Hsieh is convinced he will stay in publishing. "I had no interest in publishing before, but once I found out about it, I was fascinated," he said."Now publishing is my career. We're able to compete because of the Mac." ■

Doug McKechnie: "I've got a piano, a couple of synthesizers, samplers and a Macintosh. As far as I'm concerned, they're all musical instruments."

CAMILLE GOODE

Making music with a bridge and a Mac

BY PRISCILLA BURGESS
Special to MacWEEK

SAN FRANCISCO — To San Francisco Bay Area musician Doug McKechnie, the cables on the Golden Gate Bridge looked like a giant's harp. So in the middle of a summer night in 1975, McKechnie and some friends launched an expedition to discover the sound of plucked and thumped bridge cables.

Although the expedition was routed by the California Highway Patrol, McKechnie did manage to record several minutes of the sounds made by the bridge. The tones were rich and vibrant, but there was no way to use them musically, and the tapes languished.

With the arrival of the Macintosh and a variety of music software that could communicate with electronic samplers and sound synthesizers, McKechnie realized the noises he had collected could be reworked into sounds that could be recorded and played on his EMAX sampler.

And so subsequent expeditions to the Golden Gate Bridge were launched. The result is the Golden Gate Bridge Suite, created in honor of the bridge's 50th anniversary, celebrated this year. The suite consists of four movements that use the sounds of the sea, birds, bridge workers, and, of course, the bridge itself.

McKechnie has been involved in many musical innovations in the San Francisco Bay Area, beginning with his early work with a Moog synthesizer in 1968. He has played with the San Francisco Symphony, composed and performed music and light shows for the Morrison Planetarium in San Francisco ,and has done many sound tracks and performances of electronically generated music and images.

Last summer, McKechnie and several others started the San Francisco Synthesizer Ensemble. Of the five performers, four are human and the fifth is a Mac. This same group is pursuing its interest in "monumental music." McKechnie has just returned from New York, where he recorded the tones made by drawing a wooden bow across the cables of the Brooklyn Bridge, creating a tone like a bass cello. Using a Mac, the sounds will be converted into a Brooklyn Bridge Suite in the near future. The group is developing similar projects in Japan and in France.

The group is planning a composition in honor of the Eiffel Tower's 100th anniversary in 1989. The ensemble wants to record the booms and clangs generated by banging on the tower's metal framework, and then use a Mac to purify and sample the sounds to compose a work as an American gesture to the French in the same spirit as the French gift of the Statue of Liberty to America in 1886.

McKechnie was one of the first to truly comprehend the power of the Mac for musicians. Gesturing around his San Francisco studio, McKechnie said: "I've got a piano, a couple of synthesizers, samplers and a Macintosh. As far as I'm concerned, they're all musical instruments." ■

14V"/15" Monitor for the Apple Macintosh II

How to Flatten an Apple

The *FHF3500K* from Mitsubishi Electronics is a 14V" flat square color monitor fully compatible with the Apple® Macintosh™ II. Make the move to Mitsubishi® today for all your Macintosh II needs.

- Flat square screen for better viewability
- Apple mode: 640 x 480 resolution
- Readable full-page text using Aldus Pagemaker
- Tilt and swivel base available

Mitsubishi Electronics America, Inc., Computer Peripherals Division, 991 Knox Street, Torrance, CA 90502. Telephone: (213) 515-3993, ext. 382.

MITSUBISHI ELECTRONICS

Apple is a registered trademark of Apple Computer, Inc.

LOUIS DUNN

It's time to clear up the FCC regulations of computers

When was the last time you investigated the FCC certification status of your computer and its peripherals? Probably never, we would guess — how the Federal Communications Commission rates a device is hardly uppermost in the minds of computer equipment users. You may have a vague memory of seeing an FCC sticker on the back of your hardware and perhaps a paragraph or two of legalese in your manuals, but if you are like us, you probably have never paid much heed to any of this.

But perhaps it is time that users, vendors and federal authorities took a closer look at the how and why of FCC supervision of the computer industry. The original goal of the government regulations — to ensure that devices installed in offices and homes won't interfere with the operation of equipment on which others depend — is certainly a worthy one. After all, none of us wants to come to work one day and find our screen suddenly quivering because a colleague down the hall has acquired a new storage device, nor do we want to discover that our children can't watch television in the family room when the system we have just installed in the study is up and running.

To protect us from such dangers, the FCC has long relied on a two-category certification system for electronic devices. Class A is for equipment intended exclusively for office use; Class B — a much more rigorous standard — is for devices that could be used in home *or* office.

It is with the interpretation and implementation of these rules that problems begin to arise. As in every area of government regulation, we all have an interest in making certain that the standards are reasonable and understandable, procedures are efficient, and enforcement is consistent.

Unfortunately, that does not seem to be the case.

On the contrary. The issues are sometimes complex, but the more we look into them, the more confusion and ambiguity we find.

Consider the following:

• On the inside cover of every Mac manual you can find the statement: "Only peripheral devices (computer input/output devices, terminals, printers and so on) certified to comply with Class B limits may be attached to this computer." Yet reputable third-party vendors — with the support of Apple and in some cases the explicit approval of the FCC — market add-ons to the Macintosh that meet only the less stringent Class A standards.

• FCC enforcement officials have said repeatedly that devices designed to be attached to personal computers — in particular, those advertised in general-circulation publications and sold without restrictions through normal retail channels — are subject to Class B requirements. Most manufacturers of hard disk drives and other peripherals have adhered to this, even when compliance has meant delays and additional expenses. Yet SuperMac Technology, which manufactures the popular DataFrame drives, recently has obtained an advisory letter from the FCC authorizing it to market its new XP 30 and XP 60 storage devices with only Class A approval. (To its credit, SuperMac is now in the process of getting Class B certification.)

• The FCC, faced with limited budgets and more pressing responsibilities, relies primarily on test results reported by contract laboratories engaged by vendors to prepare the required documentation. But when the FCC recently began a program of "pre-grant sampling" — to evaluate new computer systems in its own labs before granting certification — it discovered that 80 percent of the selected devices were failing, even though the outside laboratories had approved the units in question.

In short, the current system is a jumble of contradictions. We think that the FCC, in consultation with the industry, needs to rethink the basic concepts behind its rules. In particular, the distinction underlying the current regulations — between Class A and Class B — ought to be clarified, if not eliminated. In the age of the personal computer, when the same equipment is widely used in both environments, the home/office distinction hardly seems a viable foundation for consistent regulation.

While recasting its rules, the FCC also should look for ways to streamline its procedures. Approval of applications for Class B certification now takes an average of four to five weeks, according to agency data. By bureaucratic standards, that's not bad. But it's an average, and vendors complain that some applications sit for months before the FCC acts.

Worse yet, a Class B device must — in theory — be recertified after every engineering modification. In the real world of competitive markets and evolving technologies, that's a requirement that strikes us as unreasonable. To the extent that manufacturers comply — and we can't help but wonder how consistently they do — such procedures slow technical progress and increase expenses that the user ultimately bears, while offering little social benefit.

In a recent "notice of proposed rulemaking," the FCC has announced plans to amend some of its murkier technical regulations. That's a start, but we think the agency has an obligation to go further: Vendors and users are entitled to clear guidelines, efficient procedures and even-handed enforcement. ■

To The Editor

Hyper deja vu

Now that the smoke is clearing somewhat after all the HyperCard hype, I would like to shed a different light on the subject. When I first saw HyperCard at the Boston Mac Expo in August, I had a feeling of deja vu. It transported me back to 1984, to my first exposure to the Mac and MacPaint. As an illustrator with a heavy computer background, I was very excited with MacPaint. Well, I was amazed, enthralled and quite enthusiastic about the possibilities of HyperCard. Bill Atkinson had done it again.

When I got back to our computer graphics studio and loaded HyperCard onto our Mac system, I felt a Hyper deja vu. Yup, Bill had done it again. It was obvious that HyperCard was developed by the same developer as MacPaint. It only paid token notice to our most costly and useful equipment, namely our full-page display and LaserWriter.

You see, the idea behind HyperCard is boundless, but the implementation is just as crippled as MacPaint and the original Mac 128K were. Supposedly HyperCard allows users to customize the machine to their own needs. Sure it does. We can have any size cards we want, as long as they're the same size as the original Mac screen. Grand assumptions like this cripple its effectiveness. There's also the awkwardness of the automatic indentation, separate "models" for browsing, authoring, painting and scripting, and poor support of the LaserWriter.

As a computer illustrator, I found MacPaint to be nice but a wimp. It took programs like GraphicWorks and Illustrator to turn the Mac into a professional tool for graphic design and illustration. HyperCard has broken new ground, as MacPaint did, but I predict it will be dwarfed, as MacPaint was, by programs that take the "Hyper" idea to the limits of users' wants and needs, not the creators'. First there will be patches and work-around Desk Accessories and Stacks similar to Click-Art Effects for MacPaint. Then a new generation of muscle programs or "StackShops" will emerge that will really let the users do what they want. Only then will HyperCard attain its rightful place — on the shelf alongside MacPaint and the Mac 128K as the first but inadequate part of a new generation.

Michael Scaramozzino, president
DreamLight Inc., Providence, R.I.

Another monitor

While your publication performs a valuable service by bringing the Mac community timely and insightful news on a weekly basis, you did a disservice to your readers by not including the Viking 1 from Moniterm in your "Window On High-Resolution Monitors" (Oct. 20).

As a Macintosh systems integrator, I have had the chance to sell, install and support most of the large-screen monitors mentioned in your article. None, however, performed to the degree that I would purchase one for myself because of such effects as screen flicker, sluggish screen update and/or "out of square" image-aspect ratios. My search for a quality monitor ended at the August Mac Expo where Moniterm Corp. introduced its Viking 1. Moniterm is the original manufacturer of monitors used in some of the products discussed in your article.

To get into the market with its own Mac monitor, Moniterm contracted the best engineers in the business. The result was a superior video adapter card that offers non-interlaced refresh and no wait states for a fast, flicker-free display at a 1,280-by-960-pixel resolution. Moniterm also offers a video card for PC/XT/AT and PS/2 computers, allowing the same Viking monitor to be shared in a mixed Mac/PC office.

Jim Salmons, president
JFS consulting, Tustin, Calif.

Send letters to MacWEEK, 525 Brannan St., San Francisco, Calif. 94107; or via MCI Mail to MacWEEK. Include your name, title, company name, address and phone number.

COMMUNICATING

John Edwards

Want to become a news editor?

It's a great job in many ways. You get to curse, smoke cheap stogies and wear a snap-brim fedora (complete with press card). It's every mother's son's dream come true.

Of course, you may not be interested in becoming a news hound. It's not a calling for everyone, particularly the bashful and the sane. But if the major on-line information services have their way, we may all soon become news editors, whether we want the job or not.

Each of the leading information services offers access to a variety of press wire services, newspapers and newsletters. On CompuServe alone the choice is display-boggling. For a $15 per hour surcharge, CompuServe's computers will automatically scan, clip and store reports from The Associated Press, Reuters Financial Wire, the Washington Post and the OTC NewsAlert service. Several other news resources also are available, although without the scan, clip and store feature.

At first, the notion of gathering your own news sounds pretty good. After all, with yourself as news editor, you won't be subjected to the radical/reactionary leanings of foul-mouthed editors. Unfortunately, once you've spent some time collecting your own news, you'll probably find the chore about as pleasurable as do-it-yourself surgery.

Although technology has made some impressive gains in recent years, researchers have yet to devise a computer that can successfully emulate a living, breathing news editor. The best on-line clipping services rely on keyword selections provided by the user. But keywords in the wrong hands can be dangerous.

For example, let's say you're interested in gathering news reports on the computer industry. You tell the information service computer to clip every story containing the word "computer." Sounds good. The only problem is that on an any given day you can expect to find hundreds of articles dumped into your folder, covering everything from Cray supercomputers to the computer that controls the dancing waters at Heritage U.S.A.

Of course, you can always narrow the search criteria. If you're interested in Apple, for instance, you could use keywords like "Macintosh," "Sculley" and "LaserWriter." You can't use the word "Apple" itself, of course, because you'll end up with a bumper crop of stories on the fruit industry. Some services allow you to add wild cards to the search criteria — like "Apple + computers" — but these provide no guarantee of complete coverage, either.

For instance, the financial analyst who predicts Apple will record earnings in the next quarter may only refer to the company as "Apple." If you specified a wildcard of "Apple + computers," the story won't be placed into your folder. This sort of thing doesn't happen too often, but once in a lifetime is often one time too many. In response, most users create very broad search criteria, which forces them to wade through megabytes of useless data.

On-line services have the potential to combine the immediacy of broadcast journalism and the in-depth coverage of newspapers. What the field needs to meet this promise is a full-fledged on-line newspaper — "an infojournal" — specifically tailored to its readers' needs.

The infojournal would be a daily general-coverage newspaper. Unlike most conventional newspapers, which publish a few editions in the morning and then retire for the rest of the day, the infojournal would be a great, interactive, ever-changing, 24-hour-a-day publication; an insomniac electronic newspaper that never goes to bed.

The technology for such a publication is already in place; what's missing is a financial commitment from one or more of the information service operators. Perhaps there just aren't enough subscribers ready to support such a publication. On the other hand, maybe the services could band together — as cable TV operators have with C-SPAN — to launch an infojournal that would be carried on all participating services.

In any event, one has to wonder if on-line services will ever produce a Walter Lippmann or Edward R. Murrow. Can great writing flourish in the medium? Time will tell. About the only thing we know about on-line journalism now is that it has a plenty of potential and no ink to rub-off on readers' hands. ■

So did these.

There's a new way to make stunning presentation slides for a fraction of the cost, in a fraction of the time, right in your office.

It's called ImageMaker.™ And it makes creating presentation slides as easy as showing them.

Produce a $100 slide for 50 cents.

With overtime charges, the simplest image from a slide service can easily run $100. But with ImageMaker, the most you'll pay for a high-quality slide is around 50 cents—the cost of film and processing.

ImageMaker works with the Apple® Macintosh,™ and popular desktop presentation software.

Get finished slides in hours instead of days.

With ImageMaker you can produce an entire presentation, from idea to projector-ready slides, in under four hours. And it's so easy to use that you, or anyone else, can quickly design professional-looking slides.

Produce a wide range of graphs and charts.

Project the best image possible.

ImageMaker slides are twice as sharp as most professional service bureau slides. And it allows you to work with a full range of brilliant foreground and background colors, three shading patterns, and your choice of many typefaces.

Choose from many typefaces.

Call 800-255-4574 (ext. 352)* for free sample slides.

Also get our literature kit and a demonstration. Start making your slide presentations sharper, faster and less expensively.

It'll turn you into a screen star overnight.

These presentation slides cost $200.

ImageMaker™

PRESENTATION TECHNOLOGIES

743 N. Pastoria, Sunnyvale, CA 94086 408-749-1959

*Inside California, call 714-545-2774 (ext. 352).

The following are trademarks of the companies listed: ImageMaker, Presentation Technologies, Inc.; Macintosh, Apple Computer, Inc. Apple is a registered trademark of Apple Computer, Inc.

LASLO VESPREMI/COURTESY APPLE

MAC JOINS WORKSTATION LEAGUE

Mac II spawns new publishing products

BY MARK L. VAN NAME
and WILLIAM B. CATCHINGS
Special to MacWEEK

Over the past two years, the Macintosh has become the machine of choice for desktop publishing applications — formerly the role of typesetting systems and the paste-up artist. As the Mac's presence in publishing has grown, new Mac models have provided more computing power and greater opportunities for individuals wishing to bypass dedicated publishing systems.

But in the mid- to high-end portion of the market — comprising corporate publishing such as technical documentation, annual reports and corporate communications — the Mac has been lacking. This arena is composed of vendors like Interleaf Inc. of Cambridge, Mass.; Frame Technology Corp. of San Jose, Calif.; and Lightspeed Inc. of Boston.

These corporate publishing products have remained the domain of the UNIX workstations from Apollo Computer Inc., Sun Microsystems Inc. and Digital Equipment Corp. Since the advent of the Mac II, however, publishing vendors have shown increased interest in the Mac as an alternative to dedicated workstations.

Interleaf Publisher, Frame Technology's FrameMaker and Lightspeed's Color Page Lay out system have all been announced for the Macintosh. Other developers, including PS Publishing of San Francisco and Addison-Wesley Publishing Co. of Reading, Mass., also are striving to attract corporate publishing professionals with their products.

These new products enter a crowded market. Any new program, particularly one that claims to be a high-end product, must go beyond the capabilities provided by the market leaders, such as Aldus Corp.'s PageMaker or Letraset's Ready,Set,Go! 4, and offer new power to users. Most new, high-end desktop publishing packages meet this challenge by trying to offer more complete solutions or by aiming to provide better typography. Some products try to do both.

More and bigger

The first approach is basically the "more and bigger" path. Products such as Interleaf Publisher and FrameMaker offer more features and let you work on larger documents. They provide complete solutions, including word processing, graphics, page layout and composition. Instead of drawing with MacDraw, entering text with Microsoft Word and then building a page with PageMaker, you use a single product that provides all these capabilities. This ability to use one package for the complete publishing cycle makes these products highly attractive to users with specialized needs.

The composition functions of corporate publishing products also have to go beyond what many Mac page layout systems provide. David Weinberger, manager of executive communications for Interleaf, said: "Page layout systems are basically page-oriented; you layout one page at a time. Our system allows you to work on entire documents at a time. As you enter text and graphics, it automatically repaginates and cuts and pastes as necessary all of the pages in the document. What you see on the screen is always what will be printed."

Functions such as repaginating take place automatically on the screen, even in large documents that contain many pages of mixed text and graphics. More significantly, the graphics

images need not be bound to particular pages. Instead, images can be anchored to pieces of text. Thus, if an image is tied to an explanatory piece of text that follows it, Interleaf will not put the image on a page if the page cannot also hold the accompanying text. "The technological problem facing the composition part of a system," Weinberger said, "is to automate the composition process as well or almost as well as a designer could do it."

Following the publishing process

The composition task is greater because these packages are designed to work with huge documents that often undergo multiple revisions by many writers who might be working on different chapters at the same time. Interleaf Publisher automates indexing and table of contents generation. It numbers figures and tables, adjusting both the numbering of all tables that follow a change and the automatic updating of all references to those tables.

Interleaf Publisher, which is file-level compatible with Interleaf's workstation-based Technical Publishing System, manages the entire publishing process from its own desktop environment. Different editors and writers can work on separate chapters without disrupting the integrity of the document as a whole. Thus, the Interleaf product is attractive to large corporations with dedicated publishing departments as well as environments having different machines, like those from Sun and Apollo.

Interleaf's product, available this month, is by far the most complex and complete publishing package for the Mac. Interleaf Publisher, which runs on the Mac II, not only has sophisticated text, image and chart functions, it also can import files from Microsoft Excel and Word, and MacWrite, and can import Encapsulated PostScript and TIFF (Tag Image File Format) files.

Improving typography

Other new Macintosh high-end desktop publishing products follow a second approach: They aim to provide better typography than previous products. PS Publishing's PS Compose focuses on those concerns. "This is a new product designed for the Mac, based on the capabilities found in dedicated typesetting front-end stations," said Robert Simon, PS Publishing's president. "It reflects that heritage in its control of text and typography."

PS Compose is oriented toward sophisticated pages where typographic quality is crucial. Simon said, "High-end desktop publishing represents not only large documents, but also complete high-quality typographic quality."

PS Compose provides fine control over text, including setting fractional type sizes and character width independent of point size, slanting text forward or backward at any angle and controlling character placement at granularities finer than the standard type measurement of a point. It also handles such typesetting constructs as floating and automatic tabulation.

Like Interleaf Publisher, PS Compose has a word processor and a drawing tool. Reflecting its emphasis, it includes automatic pagination, but not large-document functions like floating text, footnotes, indexes or tables of contents — all of which are included in the Interleaf product. You can mix text and graphics, but the graphics images are anchored to specific pages. Text can flow around or even within an image.

PS Compose is based on the

See PUBLISHING, Page 22

There's more to a font than just its design and print quality

While the Macintosh's ability to output graphics is important, most users still primarily print text. The appearance of that text is determined by the fonts used. As desktop publishing technology has improved, the quality of laser-printed text also has risen. For most Mac users with an Apple LaserWriter or LaserWriter Plus, the fonts they see are those that came with the printer. You are not, however, limited to these fonts. Today you can buy other fonts for your LaserWriter and any other PostScript-based output device.

The appearance and quality of the fonts that a printer produces depend on more than the look of the individual letters. The relationship between letters is another important factor. For example, the use of kerning — altering the spacing of letter combinations so they are squeezed closer together — can vary. Tucking the "o" under the "T" in "To" yields more attractive output. Two letters also are sometimes combined into one character in a ligature, such as the combination of the letter "f" and the letter "i," (fi). Fonts also have distinguishing marks. Some, such as Times Roman, have serifs, the fine lines that adorn the ends of many letters. Those that do not, like Helvetica, are called sans serif type.

A font is a particular size and style of type, such as 9-point Times Roman italic. The set of type sizes that are available for a particular font, such as 8-point, 10-point and 12-point Helvetica, is known as a typeface. A type family is made up of all of the variations of a typeface. For example, the Palatino family is composed of Palatino, Palatino italic, Palatino bold and Palatino bold italic.

Generating fonts

There are two basic approaches to generating fonts: using bit maps or outlines. The traditional approach is to represent each character as a bit map, which means that each letter of a font is made up of tiny dots. This is the approach followed by printers that use metal type. They need a piece of type for every size of every style of letter. The quality of bit-mapped fonts, however, is nowhere near as good as those that are generated by outline-based fonts. Bit-mapped fonts are fine, however, for dot-matrix output.

Another drawback to using bit-mapped fonts occurs when a type size is used without a corresponding font. In this case, the Mac attempts to scale an existing version of another size to the desired size. In many instances, the output will look extremely ragged.

Outline-generated fonts are used by both Adobe's PostScript and Donald Knuth's Metafont, one of the earliest computer languages for defining fonts. In the outline approach, each character in a typeface is defined by a set of points, lines and curves. Adobe, for example, defines much of each typeface with a set of mathematically derived Bezier curves. These outline definitions are used to produce a character of a given size. A big advantage to this approach is that fonts can be scaled in size easily, with little or no character degradation.

One drawback to this approach is that it takes time to generate each character, although a character's image can be stored in a cache once it is complete. Most PostScript devices, such as the LaserWriter Plus, keep the definitions of some typefaces in the printer's ROM to speed things up and then download additional, non-resident typefaces into RAM from the Mac as necessary.

Shopping around

Because of its position with PostScript, Adobe Systems Inc. of Palo Alto, Calif., is probably the best-known of the companies that sell PostScript fonts, and it probably has the largest library of typefaces available for the Mac. But there are a number of other companies that offer fonts for PostScript devices, both normal text faces as well as specialty faces for different languages and mathematical and scientific publishing.

If you decide you want to purchase alternative fonts, you will probably notice that some of the faces available look familiar but have unfamiliar names. This often happens because a company cannot copyright a typeface, but it can copyright its name. Century Software of Rockville, Md., offers a typeface family called Spokane that is essentially a traditional style known as Peignot. A true connoisseur of

See FONTS, Page 23

Executive Wish List

SOFTWARE

NCP denotes not copy-protected.
CP denotes copy-protected.

Aegis Development ... NCP
Doug Clapp's Word Tools ..... $42.
Affinity Microsystems ... NCP
AffiniFile *(DA filer)* ..... 49.
Tempo *(power user's macro utility)* ..... 54.
Allan Bonadio Associates ... NCP
Expressionist *(equation processor)* ..... 52.
ALSoft ... NCP
DiskExpress *(maximize disk performance)* 26.
Altsys ... NCP
FONTastic Plus *(advanced font editor)* .... 48.
Fontographer *(Laserwriter font editor)* ... 243.
Ann Arbor ... NCP
FullPaint *(advanced Paint program)* ..... 49.
Ashton-Tate ... NCP
dBASE Mac 1.0 *(relational, req. MacPlus)* 299.
Batteries Included ... NCP
Thunder! 1.23 *(spelling checker)* ..... 31.
Berkeley System Design ... NCP
Stepping Out *(requires 512k)* ..... 55.
Blyth ... NCP
Omnis 3 Plus *(multi-user available)*..... call
Borland International ... NCP
Turbo Pascal Tutor ..... 49.
Turbo Pascal *(HFS compatible)* ..... 59.
Numerical Methods Toolbox ..... 59.
Sidekick 2.0 *(includes MacPlan)* ..... 59.
Reflex *(while supplies last)* ..... 59.
Reflex Plus *(relational database)*..... 165.
BrainPower ... NCP
Graphidex *(DA graphics organizer)* ..... 65.
Designscope *(electronic circuit design)* .. 128.
MathView Professional *(num. analysis)*... 149.
StatView 512+ *(req. external drive, 512k)*... 178.
Bravo Technologies ... NCP
MacCalc *(easy to use spreadsheet)* ..... 79.
CasadyWare ... NCP
Fluent Fonts *(two-disk set)* ..... 28.
Fluent Laser Fonts *(Vols. 1-15)* ..... *each* 46.
CE Software ... NCP
Disktop 3.0 *(powerful DA Finder)* ..... 32.
QuicKeys *(keyboard shortcuts)*..... 69.
Challenger Software ... NCP
Mac3D *(3D graphics, CAD features)*..... 127.
Chang Labs ... NCP
Rags to Riches Led., Pay. or Rec. ..... 123.
Rags to Riches 3 Pak ..... 299.
The C.A.T. *(Contacts, Activities, Time)* ..... 239.
Inventory Control or Professional Billing... 239.
Professional 3-Pak ..... 389.
Cricket Software ... NCP
Statworks *(statistical package)* ..... 75.
Cricket Graph *(multiple windows)*..... 124.
Cricket Draw *(advanced draw capabilities)* 175.
Data Tailor ... NCP
Trapeze *(spreadsheet, reqs. 512k)* ..... 159.
DataViz ... NCP
MacLink Plus *(transfer Mac/IBM data)*..... 159.
Digital, etc. ... NCP
Turbo Maccountant *(GL,AP,AR,Payroll)*.... 255.
Dubl-Click Software ... NCP
World-Class Fonts! *(both Volumes)*..... 47.
WetPaint Clip Art *(both Volumes)* ..... 47.
Fifth Generation Systems ... NCP
FastBack Mac *(powerful backup utility)*..... 59.
Forethought ... NCP
PowerPoint *(professional presentations)* ... 189.
FWB Software ... NCP
Hard Disk Backup or Partition..... 37.
Hard Disk Util *(program backup)* ..... 55.
Greene, Inc. ... NCP
QuickDEX *(address book)*..... 24.
Ideaform ... NCP
MacLabeler or DiskQuick..... 28.
Imagine ... NCP
Smart Alarms *(DA reminder system)*..... 37.
Multi-User Appointment Diary..... 99.
Infosphere ... CP
LaserServe *(LaserWriter spooler)* ..... 64.
ComServe 1.0 *(modem sharer, NCP)* .... $124.
MacServe *(AppleTalk software)*..... 164.
Innovative Data Design ... NCP
MacDraft 1.2A *(requires 512k)* ..... 157.
LaserWare ... CP
LaserPaint *(requires Mac Plus, LaserWriter)* 315.
Layered ... CP
Notes for...Excel, Works, or Word..... *each* 41.
Legisoft/Nolo Press ... NCP
WillWriter 2.0 *(prepare your own will)*..... 30.
Living Videotext ... NCP
More 1.1C *(outlines, windows, & tree charts)* 149.
Lundeen & Associates ... NCP
WorksPlus Spell 1.1 ..... 46.
MacroMind ... NCP
Videoworks II *(animation tool)*..... 119.
MacroPac International ... NCP
101 Macros for Excel ..... 49.
Micro Analyst ... NCP
Mac Zap *(recover crashed hard disks)* ..... 36.
Microsoft ... NCP
Basic Interpreter 3.0..... 62.
Chart 1.02 *(42 chart styles, CP)* ..... 72.
Multiplan 1.1 or File 1.05..... 110.
Basic Compiler 1.0 ..... 119.
Fortran 2.2 *(compiler)* ..... 169.
Works 1.0 *(integrated tool)*..... 185.
Excel 1.04 *(power spreadsheet)*..... 224.
Word 3.01 *(word processor)*..... 239.
Mindscape ... CP
GraphicWorks 1.1 *(newsletters, posters)*.... 87.
Nantucket ... NCP
McMax *(dBASE III compatible)*..... 189.
Nashoba Systems ... NCP
FileMaker Plus *(feature-packed database)*.. 149.
Odesta ... NCP
Double Helix II *(relational, custom menus)* 359.
Olduvai Software ... NCP
DA-Switcher *(unlimited desk accessories)*... 26.
Icon-It! *(create custom icon bars)* ..... 41.
OWL International ... NCP
Guide *(hypertext, free-form info)*..... 77.
Guide Envelope System ..... 99.
Palantir ... NCP
inTalk *(communication to emulation)*..... 99.
PBI Software ... NCP
HFS Locater *(DA organizer for HFS)*..... 26.
HD Backup *(supports MFS, HFS)*..... 28.
Personal Computer Peripherals ... NCP
HFS Backup ..... 29.
ProVUE Development ... NCP
OverVUE 2.1 *(power-packed database)* ... 149.
Satori ... NCP
BulkMailer 3.0 *(mailing lists)*..... 82.
BulkMailer Plus *(up to 90,000 names)*.... 199.
Legal Billing *(attorneys to accountants)*.... 379.
Legal Billing II *(full trust accounting)*..... 569.
Project Billing *(architects to engineers)* .... 442.
Silicon Beach Software ... NCP
Silicon Press *(printer utility, 512k)*..... 41.
SuperPaint *(advanced graphics program)*... 79.
SoftStyle ... NCP
Printworks *(print faster & in color)* ..... 46.
Softview ... NCP
Macinuse *(time-use manager)* ..... 42.
Software Discoveries ... NCP
Record Holder Plus *(data manager)*..... 45.
Software Supply ... NCP
Powerstation *(alternative to Finder)*..... 38.
Suitcase *(font and DA utility)*..... 38.
Software Ventures ... NCP
Microphone 1.1 *(includes Glue™)*..... 119.
Solutions, Inc. ... NCP
SmartScrap & The Clipper or Glue ..... 40.
SuperGlue *(total graphic integration)*..... 57.
SuperMac Software ... NCP
SuperSpool 3.4 ..... 45.
Diskfit *(backup & restore utility)*..... 45.
Network Diskfit *(automatic backup)* ..... 205.
SuperLaserSpool ..... 85.
Sentinel *(encryption)* ..... 85.
Multi-User SuperLaserSpool..... 205.
Survivor Software ... NCP
MacMoney *(financial planner)* ..... 41.
Symmetry ... NCP
Acta 2.0 *(outline/writing desk accessory)*... $37.
PictureBase 1.2 *(clip art manager, 512k)*.... 59.
THINK Technologies ... NCP
HFS Navigator 1.0 *(search for buried files)* .. 35.
Laserspeed *(Laserwriter utility)*..... 55.
Lightspeed Pascal *(includes debugger)* .... 65.
Lightspeed C *(top-rated C Compiler)* ..... 95.
InBox Starter Kit ..... 215.
T/Maker ... NCP
ClickArt Personal Graphics, Effects,
Publications, Letters Vol. 1 or 2, Holidays,
Business Image ..... *each* 28.
Bombay, Plymouth, or Seville Laser font ... 45.
Write Now *(word processor)*..... 99.
TML Systems ... NCP
TML Pascal *(compiler, req. 512k)* ..... 59.
TOPS ... CP *(formerly Centram Systems)*
TOPS *(file-server/LAN software)*..... 139.
TrueBasic ... NCP
True BASIC *(fast, flexible & portable)*..... 59.
Probability, MacFunction or 3D Graphics... 35.
TrueSTAT *(statistics)* ..... 58.
Runtime *(create stand-alone applications)*... 59.
William & Macias ... NCP
myDiskLabeler w/Color *(req. Imagewriter II)* .. 32.
myDiskLabeler w/Laserwriter option ..... 35.
Working Software ... NCP
Lookup *(90,000 word spelling dictionary)* ... 29.
Findswell *(locate documents fast)*..... 29.
Spellswell 2.0 *(spelling checker)*..... 42.
Spellswell Medical or Legal Dictionary..... 57.

HARDWARE

Manufacturer's minimum limited warranty period is listed after each company name. Some products in their line may have longer warranty periods.
Note: Some hardware items are available in either platinum or beige color. Please specify.

20 Meg SCSI Hard Drive *(120 days)*..... 529.
AST Research ... 6 months
AST Turboscan *(300 dpi scanner)*..... 1389.
AST 2000 *(20 Meg, 20 Meg tape)*..... 1395.
AST TurboLaser P/S ..... 2995.
Curtis Manufacturing ... lifetime
SURGE SUPPRESSORS
Safestrip *(6 outlets)* ..... 21.
Diamond *(6 outlets)*..... 29.
Emerald *(6 outlets; 6 ft cord)* ..... 36.
Sapphire *(3 outlets; EMI/RFI filtered)*..... 47.
Ruby *(6 outlets; EMI/RFI filtered; 6 ft cord)*... 59.
Dove Computer ... 90 days
MacSnap 548S *(512E to 2 Meg w/SCSI Port)* 469.
MacSnap 2S *(1 Meg to 2.5 Meg)*..... 489.
MacSnap 4S *(1 Meg to 4 Meg)* ..... 969.
Ergotron ... 1 year
Mouse Cleaner 360° ..... 15.
MacTilt or MacTilt SE ..... 69.
MacBuffer 1024k ..... 429.
Farallon Computing ... 1 year
PhoneNET PLUS *(DB-9 or DIN-8)* ..... 45.
Hayes ... 2 years
Smartcom II *(communications software)*.... 88.
Smartmodem 1200 ..... 299.
Smartmodem 2400 ..... 449.
Kensington ... 1 year
Disk Drive Cleaning Kit..... 20.
Tilt/Swivel..... 22.
Universal Copy Stand..... 23.
Polarizing Filter or Surge Suppressor..... 34.
Apple Security Kit..... 34.
Printer Muffler *(80 column)* ..... 38.
Printer Muffler Stand *(80 column)*..... 25.
A-B Box *(for the Mac Plus, SE & II)* ..... 64.
System Saver Mac or Control Center..... 64.
Turbo Mouse *(for the MacPlus, SE & II)* ..... 83.
Koala Technologies ... 90 days
MacVision *(digitizer)* ..... 175.
Kraft ... 1 year
3 Button Quickstick..... 39.
Migent ... 1 year
Pocket Modem *(ext. 1200 baud)*..... 169.
Mirror Technologies ... 1 year
Magnum 800 External Drive *(platinum)* .. $209.
MagNet 30x *(w/cable)*..... 799.
MagNet 40x *(w/cable)*..... 1079.
Magnum Tape 40 II Backup ..... 1079.
MagNet 40/40 *(40 Meg, 40 Meg tape)* .... 2139.
Personal Computer Peripherals ... 2 years
MacBottom HD 21 Meg SCSI ..... 749.
MacBottom HD 32 Meg SCSI ..... 899.
MacBottom HD 45 Meg SCSI ..... 1159.
Optional built-in 1200 bps modems avail.. call
MacBottom I HD-144 Meg *(for Mac II; 1 yr.)* 2195.
Practical Peripherals ... 5 years
1200 Baud External Modem ..... 109.
2400 Baud External Modem ..... 189.
SoftStyle ... 90 days
MacEnhancer *(for plotters to printers)*..... 159.
Systems Control ... 2 years
MacGard *(surge protection)*..... 55.
Thunderware ... 90 days
ThunderScan 4.0 w/Power Port..... 199.

DISKS

Sony 3½" DS/DD Disks *(box of 10)*..... 18.
Fuji 3½" DS/DD Disks *(box of 10)* ..... 19.
MAXELL 3½" DS/DD Disks *(box of 10)*.... 20.
Verbatim 3½" DS/DD Disks *(box of 10)*.... 20.
3M 3½" DS/DD Disks *(box of 10)*..... 20.

ACCESSORIES

I/O Design
Imageware II *(Imagewriter II carry case)* .... 45.
Macinware Plus *(Mac Plus carry case)* ..... 65.
Macinware SE *(Mac SE carry case)* ..... 75.
Kalmar Designs
Teakwood Roll-top Case *(holds 45 disks)* ... 14.
Teakwood Roll-top Case *(holds 90 disks)* ... 20.
Moustrak
Moustrak Pad *(large 9" x 11")*..... 9.
Sensible Softworks
Quality "MacAttire" nylon dust covers.... 7-17.
High Trek Mac Plus carry case ..... 59.
High Trek Mac SE & extd. kybd. carry case 69.

OUR POLICY

- We accept VISA and MASTERCARD.
- No surcharge added for credit card orders.
- Your card is not charged until we ship.
- If we must ship a partial order, we never charge freight on the shipment(s) that complete the order.
- No sales tax.
- All U.S. shipments insured; no additional charge.
- APO/FPO orders usually shipped 1st Class Mail.
- Allow 1 week for personal and company checks to clear.
- COD max. $1000. Cash or certified check.
- 120 day limited warranty on all products.*
- To order, call us anytime Monday thru Friday 9:00 to 9:00, or Saturday 9:00 to 5:30. You can call our business offices at 603/446-7711 Monday through Friday 9:00 to 5:30.

SHIPPING

Continental US: Barring massive computer failures and other natural or unnatural catastrophes, all non-C.O.D. orders phoned into MacConnection by 8 PM EST will ship Airborne the same night for next day delivery, except for those within UPS Ground Zone 1 (which is also an overnight service). The total freight charge on any order placed with MacConnection is now $3. Backorders will also ship Airborne overnight at no additional charge. Some areas require an additional day delivery. **Hawaii, Alaska and Outside Continental US:** Call 603/446-7711 for information.

1-800/Mac&Lisa

MacConnection
14 Mill Street
Marlow, NH 03456
603/446-7711

520E

MacConnection™

14 MILL STREET, MARLOW, NH 03456 1-800/622-5472 or 603/446-7711

©Copyright 1987 PC Connection, Inc. MacConnection is a division and trademark of PC Connection, Inc., Marlow, NH. All items subject to availability. Prices subject to change without notice.
*Defective software replaced immediately. Defective hardware repaired or replaced at our discretion.

Ho! Ho! Ho!

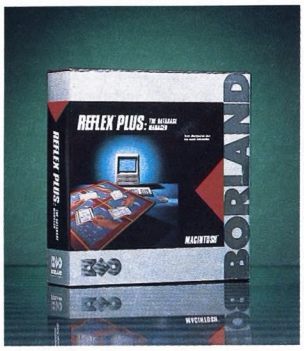
Hard drives to 144 Meg!

The hard drive pictured above is no slouch of a storage system. It's the *MacBottom HD 45 Meg SCSI* from Personal Computer Peripherals. Not so long ago, a Mac power user would give his right front window for one of those babies. But now PCPC is tempting you with storage that staggers the imagination. A *144 Meg* internal unit for your Mac II, no less. Just loosen two screws, slip in the drive, reassemble, re-boot, and download every disk in your office. For those of you with less voracious memory requirements, PCPC has three versions of external drives. They can be bought with an optional built-in 1200 baud modem, all are compatible with the new Mac II as well as previous Mac versions, and they are available in either platinum or beige.

Personal Computer Peripherals ... 2 years

MacBottom HD 21 Meg SCSI **$749**
MacBottom HD 32 Meg SCSI..... **$899**
MacBottom HD 45 Meg SCSI **$1159**
Optional Built-in 1200 baud modem (available for each unit).. **$call**
MacBottom IHD-144 Meg ... 1 year (internal for Mac II) ... **$2195**

Borland relates!



With Borland's *Reflex Plus: The Database Manager* you can keep track of clients, bill customers, maintain inventory, analyze sales reports, and generally keep track of and relate all the information you use to run your small business. This new version of Borland's fully-relational Reflex database has many new and unique features. They include a GroupBY function that groups records as you need them, an Auto-Save function, and multiple entry forms. You can even enter data for more than one database from within a single form.

Borland (not copy-protected)
Reflex Plus (for 512, 512E, Plus, SE & II) **$165**

Stop conflicts!

Wouldn't it be nice if people didn't schedule appointments for you the day you were flying to the Bahamas? Don't you wish your boss would stop arranging one conference for the same day you had scheduled another? *Multi-User Appointment Diary* can end those scheduling conflicts. It's the only multi-user calendar for the Mac network (AppleShare, Tops, or MacServe). Full search and print capabilities included. And a simple menu choice can turn any appointment into a *Smart Alarm* reminder.

Imagine (not copy-protected, for 512, 512E, Plus, SE & II)
Multi-User Appointment Diary 1.0 (w/Smart Alarms) **$99**
Smart Alarms 2.5 (single-user)..... **$37**

$3 Overnight.

Do you know that practically all of the people we ship to receive their packages *the next day?* For only $3 per order. With our new Fly-by-Night℠ service, all you need to do is (1) phone in your non-COD order by 8 PM EST, (2) relax, watch TV or go bowling, (3) accept delivery of your order the next day. Because while you were asleep, your order was picked, packed, trucked, planed, sorted, and then some. To make sure you'd have it when you need it—in most cases, by noon.

The *only* exception would be in the event of extremely unnatural circumstances (i.e. massive computer failures, Marlow-wide power blackouts, etc.). Airborne Express handles the majority of our shipments and, in all but a few cases, will deliver the following day. Orders for delivery within UPS Ground Zone 1 will ship UPS and arrive the next day.

Mac Macros.

Tempo can take any series of keystrokes or mouse clicks and turn them into a single key code. It can repeat that series at any time you like, as often as you like, and even make decisions as to when you want them repeated. It can also move from program to program—great for automating data transfers.

Affinity Microsystems (not copy-protected)
Tempo 1.2 (for 512, 512E, Plus, SE & II)..... **$54**

Fingertip Facts.

AffiniFile is a desk accessory filing program. Each file you create can include hundreds of topics and subtopics and can, if you like, be the "default file" for a specific application—so you're able, for example, to create your own customized help screens. Every file card shows its topic, subtopic, and related topics.

Affinity Microsystems (not copy-protected)
AffiniFile 1.0 (for 512, 512E, Plus, SE & II)..... **$49**

Making Macs more manageable.

These two products will keep your vertebrae and your mouse in line, respectively. *MacTilt* is a simple tilt and swivel device that slips under your Mac and makes it look you right in the eye. The *Mouse Cleaner 360°* eliminates all sorts of gunk from your mouse's merry mechanism. Simply replace the mouse ball with the cleaner ball, a few rolls and you're back in business.

Ergotron ... 1 year
MacTilt or MacTilt SE..... **$69**
Mouse Cleaner 360°..... **$15**

Award winning WP.

WriteNow from T/Maker was judged the best word processor of the year (1986) by MacUser magazine. It gives you true WYSIWYG editing, including headers, footers, footnotes, and fonts (4 to 127 points). You can save, scroll, search, and print even large documents with blazing speed. It also has a 50,000 word spelling dictionary, and even lets you set up to four columns on a single page. This is a premier word processing program.

T/Maker (not copy-protected)
WriteNow 1.07 (for 128, 512, 512E, Plus, SE & II)..... **$99**

MacConnection™

14 MILL STREET, MARLOW, NH 03456 1-800/Mac&Lisa or 603/446-7711

©Copyright 1987 PC Connection, Inc. MacConnection is a division and trademark of PC Connection, Inc., Marlow, NH.

PUBLISHING

Continued from Page 19

public-domain MCS (Modular Composition System) typesetting code scheme developed by Compugraphic Corp. of Wilmington, Mass. It provides both a code window and a WYSIWYG window. You can edit in either, and any changes made in one window will appear automatically in the other. This allows you to work on a display representation of a page and to insert typesetting codes when you need a finer degree of control. If necessary, you can insert PostScript commands.

PS Compose outputs to non-PostScript devices, specifically Compugraphic typesetters and typesetters that support the MCS codes.

"PostScript, while important," said Simon, "represents only a small portion of the installed base of typesetting equipment."

Bringing TEX to the Mac

Addison-Wesley's TEXtures is another high-end package that is aimed primarily at improving typographic quality, but shares some of the large-document orientation as well. It is based on a typesetting language and compiler, TEX, developed by Donald Knuth at Stanford University in Palo Alto, Calif., for publishing mathematical and scientific texts.

TEXtures is compatible with the source files for TEX versions on more than 50 other machines. TEXtures, however, is more than a simple port of the TEX compiler, according to Brian Skidmore, product manager at Addison-Wesley.

TEXtures provides both a source code window and a preview window. Unlike PS Compose, however, you can work only in the source code window. You enter text and TEX commands to control your document's format. To display or print the result, you choose a menu option that tells TEXtures to build the document. Then it presents you with the image in the preview window. You can examine or print the document. While this may seem counter to the WYSIWYG behavior of many Mac desktop publishing programs, Skidmore claims otherwise. "People often confuse WYSIWYG with interactive. WYSIWYG refers to the visual representation on screen of what you will see on the paper. We provide that representation, but we do not let you interact with it," he said.

Perhaps because of its emphasis on typographic quality, TEXtures does not provide any drawing tools. You can, however, use commands to insert into your document a bit-mapped or PICT graphic image stored in a separate file. You can tie that image to any text item so that the image can float over pages. Because formatting is controlled by the TEX commands, it provides only a text editor, not a full set of word processing functions.

Skidmore attributes the high-quality output of TEXtures to its approach to documents. "TEXtures fundamentally views documents as sets of paragraphs, not lines. This gives it a higher-quality final output than many products. For example, it considers hyphenation based on the contents of the entire paragraph, not just one line," he said.

Addison-Wesley is not the only vendor to offer TEX for the Macintosh market. Personal TEX Inc. of Mill Valley, Calif., also offers a version called MacTEX.

The price to pay

High-end desktop publishing packages differ in cost — both in money and resources — as well as in their basic approach. At the low end, TEXtures, priced at $495, runs on any Mac from a 512KE to the Mac II and only requires two 800-Kbyte disk drives, although Addison-Wesley recommends at least 1 Mbyte of memory and a hard disk drive. PS Compose requires a Mac Plus or higher with at least 1 Mbyte of memory and a hard disk. If you need only PostScript output, it is priced at $800. A version that supports both Compugraphic and PostScript output is $2,000.

Interleaf Publisher for the Mac II is one of the more expensive packages, although it also provides the richest set of features. It costs $2,495 for the software alone, but versions bundled with hardware also are available. It works on a Mac II with at least 5 Mbytes of memory and a 40-Mbyte hard disk.

Elsewhere in the market

Other vendors, such as Frame Technology and Lightspeed, have announced products for the Mac. Lightspeed recently introduced a version of its Color Page Layout system, intended more for advertising and related publishing than for corporate publishing. The product requires a Mac II, 5 Mbytes of memory, a hard

See PUBLISHING, Page 23

SUPER PAINT

featuring LaserBits,™ for full-page 300 dpi bitmap editing

When All You Need is a Masterpiece!

Winner of *InfoWorld's* prestigious ***"1986 Product of the Year"*** award for ***Presentation Graphics*** and *MacWorld's* ***"1986 Most Promising Newcomer"*** award, ***SuperPaint*** is the "product of choice" for serious Macintosh™ users who need to combine the fine detail of a paint program with the precision of a draw program.

Suggested Retail Price
$149.95

Site Licenses Available
University Pricing Available

System Requirements:

Macintosh 512K, 512E, Plus, SE, XL or Macintosh II. One disk drive.

SILICON BEACH SOFTWARE™ Inc

P.O. Box 261430
San Diego, CA 92126
619/695-6956

Macintosh is a trademark of Apple Computer, Inc.
LaserBits is a trademark of Silicon Beach Software, Inc.

FONTS

Continued from Page 19

typography will find differences between such sets of similar typefaces, but you may not want to pay for multiple fonts that are very close in terms of design. Before you order a typeface, you should see a sample to be sure that you do not already have something similar to it.

You also should see a font on paper and not merely on the screen. The screen image is a low-resolution bit map that does not always closely match the printed output. If you are using a PostScript printer, be sure to use PostScript fonts. For example, the Mac's New York font, a bit-mapped font, corresponds to Adobe's Times, and its Geneva corresponds to Adobe's Helvetica.

Think of the future

Any font you buy should work not only with your present laser printers but also with any you might buy later. Ideally, it should work with all PostScript printers, such as the QMS and AST offerings, not just with Apple's. It is possible some printers using a PostScript-compatible language that may be coming to the market next year could provide incomplete or flawed implementations and be unable to accept some PostScript font files. Try to verify whether any fonts you purchase can be downloaded into any printer that offers a complete version of PostScript.

Many companies offer alternative fonts for the LaserWriter. CasadyWare Inc. of Carmel, Calif., was a pioneer in this area with its Fluent Laser Fonts. It sells such typefaces as Regency Script, a fancy, free-flowing, cursive script, and Sans Serif, a modern, unadorned, sans serif type. CasadyWare packages two to six typefaces on a single disk for $69.95.

Century Software was another early entrant in this market. Century emphasizes inexpensive and accessible fonts called LaserFonts, typically priced at $29.95. Century's Willamette is a clean, simple, sans serif typeface similar to Avant Garde. Styx is a bold, futuristic typeface similar to those seen in many science-fiction movies.

Other companies are entering this market rapidly. Allotype Typographics of Ann Arbor, Mich., offers a line of PostScript fonts, including foreign language, classical Greek and scientific fonts. NeoScribe International of East Haven, Conn., offers Hebrew, Greek and old-style type, as well as specialty typefaces. T/Maker Co. of Mountain View, Calif., the company behind PostScript ClipArt, sells PostScript typefaces as well.

Designing your own

Finally, you can follow the original Mac spirit and roll your own. Altsys Corp. of Plano, Texas, offers a program called Fontographer with which you can design typefaces. You enter characters graphically, and the program will generate the required PostScript files. The process can be difficult because you must manipulate potentially complicated sets of points, lines and curves, but it does open the door to a whole new world of typefaces.

You even can use Altsys' FONTastic, a bit-map font editor, to improve the display versions of your new fonts.

Whether you want to experiment with your own fonts or simply improve the appearance of your laser printer's output by buying some new ones, there are plenty of Macintosh products that can help you out.

The only limitations are your creativity, your willingness to work and, of course, your pocketbook. — *By Mark L. Van Name and William B. Catchings*

PUBLISHING

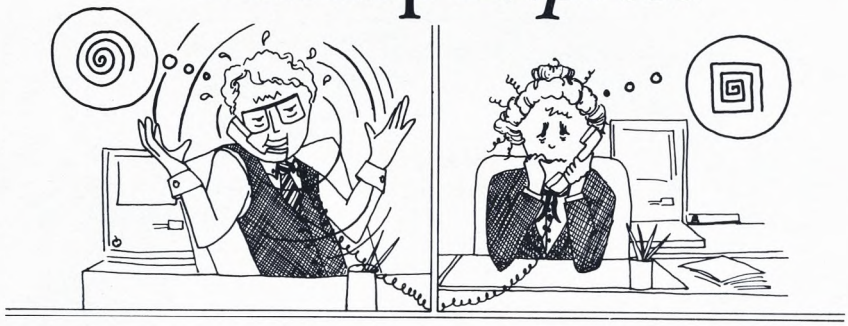
Continued from Page 22

disk and a 19-inch, high-resolution color monitor, and allows for fine tuning of color images and outputs to color devices.

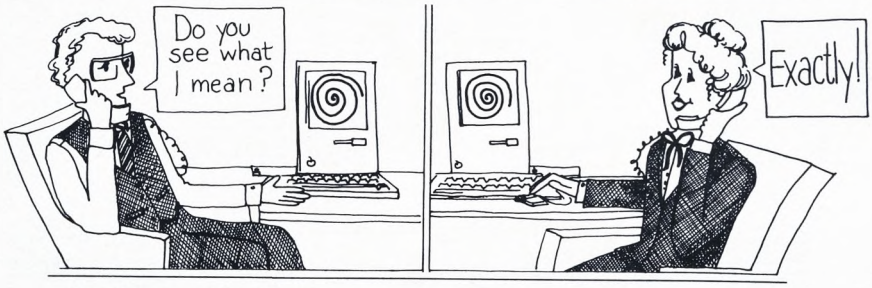
Frame Technology, which puts out FrameMaker for the workstation market, has announced intentions to develop a version of the product for the Mac II, although the timetable is still uncertain.

Many users will find these advanced publishing programs beyond their needs. For these users, products like PageMaker, Quark XPress and Target Software's Scoop, combined with other Mac applications, will continue to suffice. Whether you need one, or can even use one, depends on how well your application matches its abilities and goals. For the corporate publishing department, the university with technical papers to produce, the advertising production department and other publishing-intensive sites, products like Interleaf Publisher, TEXtures, PS Compose and the Color Page Layout System can definitely fit the bill, making your Macintosh more useful. ■

Desktop *Express*™



because great minds seldom think alike.



The Meeting of the Minds With Desktop *Express*™ software, the great mind in New York can *see* what the great mind in L.A. has been trying to say.

Send text *and graphics,* using a Macintosh™, a modem and MCI Mail®, to your associates in the next office, or in the next state. With this new electronic mail and document delivery service, they'll get the picture clearly anytime – day or night – via MCI Mail.

Desktop *Express* extends the 5 o'clock "express" deadline, so working across time zones can be as efficient as working across the hall. And, it replaces those fuzzy facsimile figures and forecasts with high resolution graphic presentations. Send ideas back and forth in a matter of minutes and accomplish in an afternoon what would normally take several days of overnight courier exchange.

Created by Dow Jones, Apple, and MCI, Desktop *Express* works with the Macintosh software programs you've come to rely on. Create a business plan complete with charts, graphs and spreadsheets. Send it to any of your associates who have Desktop *Express*. They can review the plan and even print it – all *without* the software program you used to create it. But if they do have the program, and Desktop *Express*, they can revise your document on the spot and return it to you.

For your associates who don't own a Macintosh, Desktop *Express* still delivers. Direct your documents electronically to an MCI Mail Print Center. There they will be printed on a laser printer and delivered via postal or overnight delivery.

With Desktop *Express*, your big ideas will get looked over, not overlooked. So, for the Apple Dealer in your area call **1-800-538-9696 Ext. 350**.

Desktop *Express*. Now, great minds don't have to think alike to get the picture.

Dow Jones®

P.O. Box 300, Princeton, NJ 08543-0300. Desktop *Express* is a trademark of Dow Jones & Company, Inc. © 1987 Dow Jones & Company, Inc., All Rights Reserved.

THE WORLD ACCORDING TO FELIX. Everybody has their own taste in pointing devices. Now there's a new one on the menu. Felix. If you have an acquired taste for the mouse, it may take a little getting used to. But your sense of adventure will be rewarded. Felix does in one square inch things a mouse never dreamed of doing.

Lightgate and Felix are trademarks of Lightgate, Inc. All other product names are trademarks of their manufacturers.

Experience five times the resolution of an Apple mouse. Feel where you are on the screen instead of looking. Control the world in an area the size of a postage stamp. Felix is built around a single moving part. The one at the end of your wrist. Investigate this story at your local computer dealer. Or contact Lightgate, 6300 Telegraph Avenue, Oakland, CA 94609. 800-426-5324. Felix. Post-mouse input device. Think with your hands.

WINDOW ON VERTICAL MARKETS

OPENING DOORS

Mac stakes out new territory

BY RICK LEPAGE
MacWEEK Staff

The Mac, for all its strengths, has never really been thought of as a vertical market machine. It has penetrated certain niche markets, such as desktop publishing, with ease, but it has yet to become the machine of choice for doctors, lawyers and other specialized professionals.

But as the Mac matures and sophisticated development tools become available, there has been an increase in all sectors of Mac vertical market development — from the small doctor's office to a Fortune 500 company.

Vertical markets are best described as small, highly specialized segments of an industry or occupation. Some of the bigger vertical markets are the medical, legal, scientific and real estate industries, and there are subsections within each. Because many businesses within a vertical market are small, many of these markets have not yet been computerized, representing a large opportunity to vendors and developers of hardware and software products.

Until the entrenchment of microcomputers in the general business marketplace, vertical market applications were the province of large organizations and minicomputers. For example, a large legal office with 200 employees might buy a Digital Equipment Corp. VAX and a software program that tracked time and billing applications.

Unfortunately, this approach left little for the smaller law offices, which often have fewer than 10 employees and cannot afford to spend tens or hundreds of thousands of dollars to automate their operations.

Enter the microcomputer

The story of the IBM PC's success is well-documented, and that success seeped into vertical markets as well. With the cheaper hardware a large number of programming languages and customizable software applications, the smaller businesses within a vertical market segment could start looking at ways to computerize their manual processes.

While IBM itself did not push its products directly into vertical markets, developers did. Bill Hulbig, president of 1st Desk Systems Inc. of Medway, Mass., and the MicroGroup, developer of the 1st Desk line of database and development products for the Mac, said: "With the PC, you have applications like (Ashton-Tate's) dBase and (Microrim's) Rbase, a very solid group of products to build upon. For the Mac, it just hasn't happened until recently."

Jeff Tarter, publisher of Soft•letter, a software industry newsletter based in Cambridge, Mass., said: "I don't have the sense that many people are really selling vertical market products. The Mac isn't a vertical market machine yet, though that seems to be changing."

The Macintosh lagged behind the PC in vertical market development for the same reasons many people gave for not working with the Mac in general: There were no real business applications, the Mac was looked upon more as a toy than a business machine, it was not compatible with the IBM PC, and so forth. George Everhart, Apple's director of business development, agreed that Apple has not really targeted vertical markets well until recently. "Apple is just beginning to target vertical markets. It would be misleading to say that we have a complete plan that has been in place for a long time," he said.

As the Mac's influence has grown, interest in vertical market applications has grown with it. Apple intends to develop plans for the engineering, legal, health care and small-business accounting markets. Everhart is forthright about the scope of the task ahead of Apple, but he said he believes that the combination of the Macintosh with appropriate third-party applications will be successful.

"Our approach to vertical markets is fairly straightforward. First, we have to learn the given needs of a particular market. Then, we have to learn the language, so to speak. At that point, we can pick the horizontal solutions," Everhart said.

Rick Kollmeyer, co-owner of The Support Group, a Quincy, Mass., company that provides training and custom database development said he sees interest in the Mac from individuals within vertical markets. "A lot of vertical market applications, especially multi-user stuff, is on the increase, especially with the new machines," he said. "Ethernet also should really open up this market for multi-user networking applications. Once the pieces start to fall in place, you should see it jump even more."

Development from the inside

Vertical market development usually comes from individuals familiar with a particular industry segment. For example, a dentist who is a computer enthusiast might create a database application for his practice and then sell it to other dentists. A programmer for a large construction company might develop an inventory and control analysis program for smaller companies. Or a consultant could develop a complete real estate system based on off-the-shelf hardware and software, create customized files and documentation, and sell it to local real estate agents. Whatever the situation, vertical market applications often require customized and personalized work that is not often performed by dealers and large hardware and software companies.

Development of vertical market applications for the Macintosh is achieved in many ways. Developers have a number of database products to work with, including Omnis 3 from Blyth Software Inc. of San Mateo, Calif.; 4th Dimension from ACIUS Inc. of Cupertino, Calif.; 1stFile from 1st Desk Systems; and dBase Mac from Ashton-Tate of Torrance, Calif. There is also a wide range of programming languages and products available for developers to create applications from scratch.

Most development is done with database programs. The Support Group programs mainly with Omnis 3, although it has recently seen the need for working with 4th Dimension, too. Softworks Inc. of Huntington, Conn., uses 4th Dimension to create real estate programs.

One advantage that application developers have is that the vendor of the database they use will help them sell their programs. Most database vendors have a catalog of vertical market applications developed with their programs and often will direct inquiries about a market segment to the appropriate developers.

Custom programming has decreased as the database programs have begun to offer more power to developers, but there are still a few who shy away from the database route. One of these developers is HealthCare Communications of Lincoln, Neb., which provides a range of software programs for the medical, dental, chiropractic and optometric markets. Jim Schlehuber, senior vice president of sales and marketing for HealthCare, said it was easier to create customized applications for his company's market niche. "It seemed much easier to program from the bottom up," he said. "The special needs that doctors have can't really be addressed by a database program."

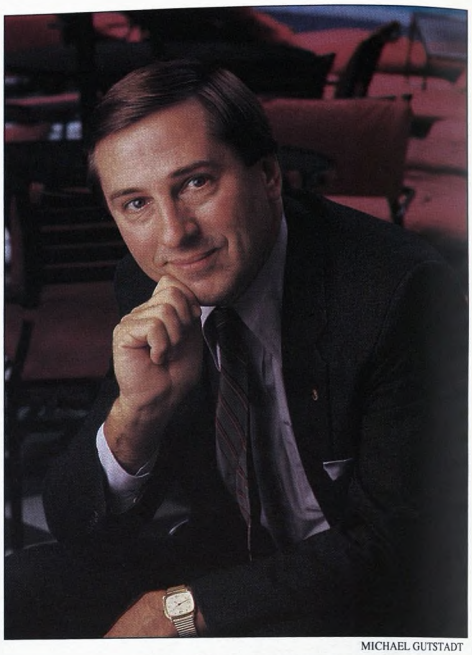
Problems

With vertical market development comes a number of problems, including the need to sell the Macs as well as the application, the geographical range often imposed upon developers, and distribution and marketing of products.

Selling the Mac is a problem developers repeatedly point out, although almost all those surveyed admit that this problem is becoming less of an issue as the Mac market matures. Steve Henry, president of MacLord Systems, a developer for the real estate market based in

"I think the real vertical markets are inside large companies, subsystems that are clusters within a large corporation."

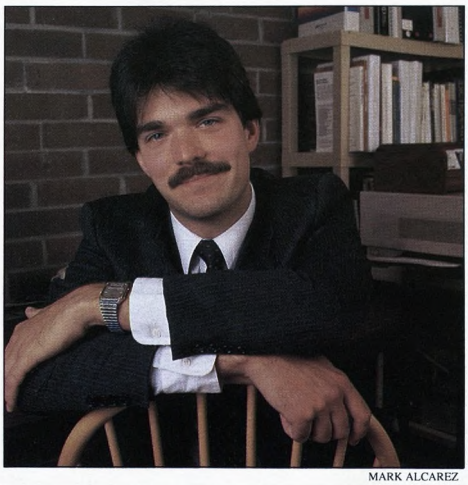
BILL HULBIG, 1st Desk Systems Inc.



MICHAEL GUTSTADT

"A lot of vertical market applications, especially multi-user stuff, is on the increase, especially with the new machines."

RICK KOLLMEYER, The Support Group



MARK ALCAREZ

Riverside, Calif., said, "Sometimes we've lost sales because users just didn't think that the Mac could do it, but now things seem to be changing for the better."

Guy Kawasaki, president of ACIUS, said the issue is not necessarily limited to the Mac. "You're selling computerization as well as the Macintosh — it might be easier for the PC, but I think it is still the case there as well," he said.

Geographic range, distribution

Because many vertical market developers are small, they are often limited by the geographic range with which they can provide adequate installation, service and support. Kawasaki said this is one reason vertical market development is tough. "I think that, generally, vertical market software is limited by the geographical reach of a developer. Within a 100-mile radius, a developer can provide good vertical market software support and installation. The Mac being what it is, that radius could be increased a bit, but not a lot," he said.

Distribution can be a problem for developers. The need to provide personalized service to a market segment, coupled with the problem of making dealers knowledgeable enough to sell specialized products, makes it tough to achieve a wide distribution. MacLord Systems' Henry had a hard time selling his package through the dealer channel. "It is hard for dealers to work with vertical markets; not enough Realtors walk into a computer store and ask for a program to run their office. But that could be changing. Apple is now requiring its dealers to have outside sales staffs selling applications for desktop publishing, accounting, property management and other markets," he said.

Stephen Burakoff, president of Layered Inc., the Boston-based developer of the Insight line of accounting programs, sees a solution to the problem of distribution, one he terms "collation." Collation involves a dealer selling a set of solutions tied together to an individual within a vertical market.

"We like to think about collated, rather than vertical, markets. You show me a dealer who can successfully sell vertical market software. On the other hand, talk to me about a dealer who is interested in selling to lawyers, doctors, accountants and architects," Burakoff said.

"The problem is that the dealer doesn't really have a good idea about what these people specifically need, and the buyer doesn't really know what is out there. Our approach is such that we bring these two together. Wouldn't it be nice if the dealer had a little brochure that detailed solutions for these different vertical markets, so that when an architect walks in to see a dealer, he can go through a checklist of what he needs? That's our approach; we provide the glue for both these people," he said.

Burakoff's approach also includes opening up the Layered system so developers can customize applications for specific users. Along those lines, Layered is setting up a number of close associations with other vendors to help users get total solutions.

New vertical markets

Some developers tend to stick to the traditional markets, but a few are finding a new area of specialization: vertical markets within a large corporation. Hulbig of 1st Desk said that this is the market he is going to. "I think the real vertical markets are inside large companies, subsystems that are clusters within a large corporation. There you have the same sorts of vertical applications — invoicing, sales, marketing and inventory control — that you have in the narrower markets like the doctor's office, the trucking company, the donut shop. I'm not interested in the smaller guys — IBM owns those markets — I want to go to the Fortune 1,000 companies," he said.

Apple's Everhart also points to this segment of the market as a logical transition from the smaller niche markets.

HyperCard and vertical markets

Developers point to Apple's HyperCard, which has created quite a bit of excitement among users and vendors for its flexibility. The interest stems from the ability of HyperCard to act as a front end to existing applications. As Hulbig put it: "Up until a few weeks ago, you could only go 95 percent with the Mac, whether you were using Helix, Omnis, our products or any other database. That missing 5 percent was the interface, and that's what HyperCard will do. If I can't interface to HyperCard, I'm dead; it's as simple as that."

With HyperCard used as an interface, many developers believe that the Mac has an even better chance at penetrating vertical markets. And while the Mac is just starting to crack vertical markets, the opportunities are wide open. New machines, like the Mac II, coupled with sophisticated database programs, are helping to ensure that Apple's push into vertical markets will be a fruitful one. ■

"Draw it again, Sam..."

A Star Is Born . . .

Introducing "Draw It Again, Sam,"™ the new object-oriented drawing program that brings flexibility and a new creative dimension to your computer graphics.

"Draw It Again, Sam" shares many of the same impressive features of other drawing programs like MacDraw™ and MacDraft!™ But "Draw It Again, Sam" is unique.

The End of "Clip Art" hassles

Only "Draw It Again, Sam" lets you create your own text and graphic libraries. With a click of an on-screen symbol or by menu selection you can access and run through limitless libraries. This revolutionary feature allows you to store and retrieve frequently used art, text, or logos. No more hunting through scrapbook files. No more repetitive drawing. And no more wasted time.

Create a Masterpiece —Layer by Layer

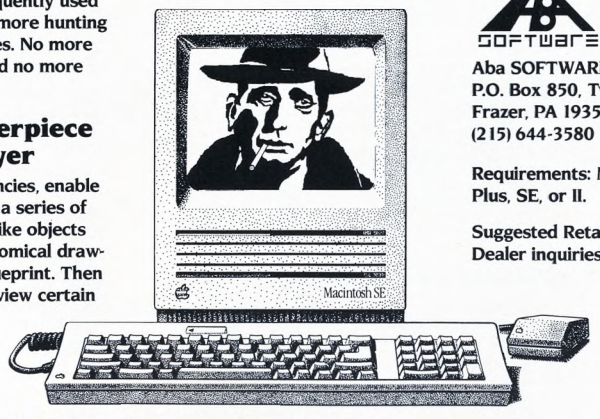
Layers, like transparencies, enable you to create art over a series of levels. You can group like objects together, as in an anatomical drawing or architectural blueprint. Then "peel away" layers to view certain slices of your artwork. Or view them all while working on only one — the mouse will pass over the unselected layers undisturbed. Use layers in conjunction with colors to produce spot color separation easily. Or extend one drawing into an animated series. The possibilities for engineering, commercial art and architectural design are endless!

Amazing Graphic Flexibility

"Draw It Again, Sam" is the only drawing program that uses "Quick Draw"™ drawing modes to their fullest potential. Imagine creating magnificent visual effects like pattern combinations, inversions and see-through objects. Graphic feats like these are virtually impossible with other drawing programs. And the countless colors and shapes achieved with "Draw it Again, Sam" are breathtaking.

"Draw It Again, Sam" even lets you manipulate objects limitlessly—after they're drawn! It takes full advantage of the high resolution available on many of today's printers and, being object oriented, requires far less storage room.

With Sam's limitless libraries, ten layered drawing planes and Quick-Draw drawing modes, you're on the road to stardom. To find out more, or to order your copy of this amazing new program, call (215) 644-3580 and say, "Draw It Again, Sam."



Call or write:

Aba SOFTWARE

Aba SOFTWARE, Inc.
P.O. Box 850, Two Davis Avenue
Frazer, PA 19355-0915
(215) 644-3580

Requirements: Macintosh™ 512E, Plus, SE, or II.

Suggested Retail Price: $150
Dealer inquiries invited.

"Draw It Again, Sam" © copyright 1987 Aba Software, Inc. all rights reserved. MacDraw, Quickdraws and the Macintosh models are registered trademarks of Apple Computers, Inc. MacDraft is a registered trademark of Innovative Data Design, Inc.

Three monitors are reviewed here — The Apple High-Resolution Color Monitor, the Sony CPD-1302 and the Thomson 4375M — with some surprising findings. For writers at a loss for words, two thesauri on disk, Word Finder and Coach Merriam-Webster, deliver the uninspired to more fertile fields.

Monitors: Choices with the Mac II

BY JAN EUGENIDES
Special to MacWEEK

When you buy a Mac II, you get choices: choices of memory configurations, choices of internal and/or external hard disks and choices of keyboards.

But best of all, you get to choose your monitor. You want monochrome? You can have it. You want color? No problem. You want a 19-inch display with a resolution of 1,024 pixels by 1,024 pixels? You can even have more than one monitor. If you can afford it, it's yours.

But the truth is, if you can afford a Mac II at all, you're probably going to be limited to buying just one monitor, at least to start with. Assuming you want color (and you do, you do!), there are a number of compatible monitors available. In this review we look at alternatives, all in the 13-inch size and in the same price range: the Apple Color High-Resolution RGB monitor, the Sony CPD-1302 MultiScan and the Thomson 4375M UltraScan. All three work with Apple's standard video card. We've examined them side by side, and our findings are not quite what you might expect.

The Apple monitor

By default, the Apple monitor is the standard against which all others must be compared. It is the most expensive of the three, and its styling matches the Mac II. It comes in the same gray (excuse me, platinum) color as the Mac II, and it is designed to sit on top of the Mac II without blocking the ventilation slots. And it has an Apple logo on the front. If matching components are vitally important to you, then Apple's monitor is the only choice.

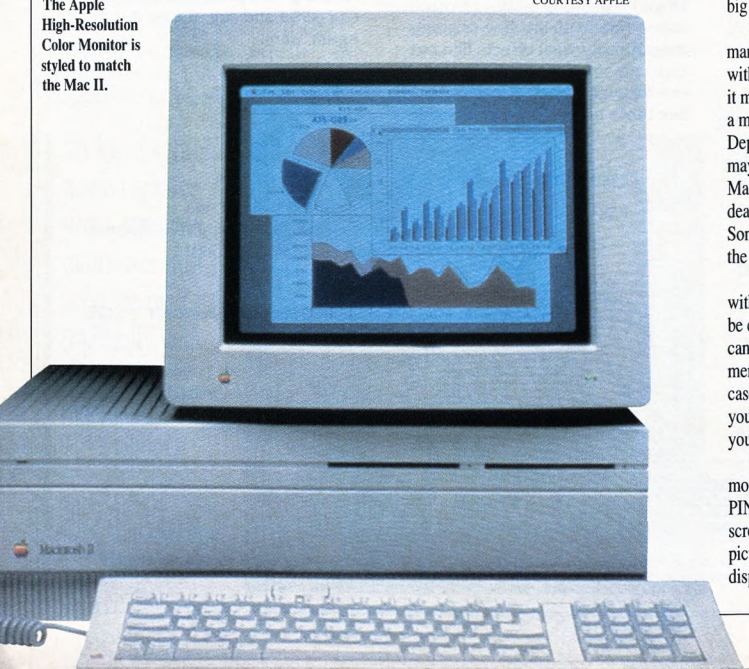
It's not a bad choice. Built by Sony to Apple's specifications, it has a Trinitron picture tube, the best in the industry. It arrives properly adjusted to work with the Mac II and with all the correct cables. Its power cable is designed to plug into the back of the Mac so that you can turn them both on with one switch.

In monochrome mode (black and white only), the display is crisp, the sign of a high-quality color monitor. Compared to the original small Macintosh screen, it has slightly less contrast and a touch less clarity, although its size somewhat makes up for the latter. In color, it's dazzling: bright, vibrant colors with a full 72-dpi resolution. Color saturation is excellent, and the display loses no clarity when in color mode.

The screen is glossy, without any attempt to have a non-glare surface, and this is our only real criticism of the monitor. You can see the reflections of room lights and even your face in the monitor. With fluorescent lighting or windows in the background, it can be distracting.

The monitor has four controls: brightness and contrast knobs on the side and two convergence controls on the back. You need a screwdriver to adjust the latter, but since you'll rarely have to adjust it, if ever, this is a perfectly acceptable arrangement. There is also a degaussing switch on the back. Degaussing (pronounced dee-GOW-sing) is video-tech talk for demagnetizing. Color displays sometimes can acquire residual magnetism that may distort the colors. Television repairmen use a hand-held degaussing coil to remove magnetism from color TV tubes. Pressing the degaussing switch on the Apple monitor automatically demagnetizes the display, saving you a service call.

Apple's monitor carries a 90-day warranty and is eligible to be covered under the AppleCare insurance plan (at extra cost).



COURTESY APPLE

The Apple High-Resolution Color Monitor is styled to match the Mac II.

COURTESY THOMSON

Text on the Thomson 4375M UltraScan Monitor appears unfocused and blurry.

The Sony MultiScan

The Sony CPD-1302 is also gray, although it's a darker gray than Apple's platinum color. It still matches well and looks quite handsome sitting on the Mac II. The Sony will fit on Apple's monitor stand, although it won't be quite as steady as Apple's monitor, which has a circular notch in the bottom that mates with the flange on the stand. The Sony is more rounded than the Apple monitor, and, of course, it has a big Sony logo on the front.

Sony's monitor is designed to work with many different computers. To work properly with the Macintosh, using Apple's video card, it must be set for analog operation. This is just a matter of flipping a switch on the back. Depending on from whom you buy it, it may or may not come with the correct cable for the Macintosh II. Before you buy, be sure your dealer will supply the correct cable. The Sony's standard power cord will not plug into the back of the Mac.

An off-the-shelf Sony 1302 will function with the Mac II, but the display will appear to be curved on the edges. This pincushion effect can be eliminated by a simple internal adjustment. There is a small potentiometer inside the case that must be set for proper alignment. If you are qualified, you can remove the case yourself and adjust the control.

It's the third one from the front on the motherboard near the power supply, marked PIN AMP. You will need a long, non-metallic screwdriver to reach it because it's below the picture tube. Just turn it until the edges of the display appear straight. Be extremely careful.

Apple Color Monitor

Apple Computer Inc.
20525 Mariani Ave.
Cupertino, Calif. 95014
(408) 996-1010
Retail price: **$999**
Strengths: Crisp in monochrome, dazzling in color; matches Mac II color and design; easy to adjust.
Weaknesses: Lacks anti-glare surface; warranty is only 90 days; less heavily discounted than third-party alternatives.

Sony MultiScan

Sony Corp. of America
Sony Drive
Park Ridge, N.J. 07656
(201) 930-1000
Retail price: **$945**
Strengths: Excellent display quality; anti-glare surface on screen; works with a variety of computers; one-year warranty on parts.
Weaknesses: Requires cable and adjustments for use with Mac II, in particular to eliminate "pincushion effect."

Thomson UltraScan

Thomson Information Systems Corp.
5731 West Slauson Ave., Suite 111
Culver City, Calif. 90230
(800) 325-0464; (800) 237-9483 in Calif.
Retail price: **$895**
Strengths: Rich color saturation; one-year warranty; works with many different computers; "street price" is lower than competitors' prices.
Weaknesses: Display is significantly less sharp, especially for text.

There are high voltages present inside the case. If you are not absolutely sure of yourself, have your dealer make this adjustment.

Once the display is adjusted, it's beautiful. It uses the same Trinitron picture tube as the Apple monitor. The main difference between the two is that the Sony has a non-glare screen. This makes it easier on the eyes and text appears a little sharper. It also makes the display look a little darker, but this can be compensated for with the brightness adjustment. The colors are just as dazzling, and color saturation is essentially the same as with the Apple monitor.

There are a few more controls on the Sony, including horizontal and vertical position and width and height settings. There is one convergence control and the aforementioned digital-analog switch. It's doubtful that you will ever need to adjust any of these. The brightness and contrast controls are on the side of the monitor, like Apple's, where they can be easily reached. The Sony has no degaussing switch, but it doesn't need one. It is designed to automatically degauss itself each time it is turned on.

The Sony comes with a one-year warranty on the electronics, two years on the picture tube and 90 days for labor.

The Thomson UltraScan

The 4375M UltraScan from Thomson Information Systems Corp. is beige, similar to the color of the old Macintosh. In other words, it doesn't match the Mac II at all. It's a good-looking monitor, though, so unless you are particularly fashion-conscious, its appearance probably won't bother you.

Like the Sony, the Thomson is designed to work with many computers. There are several switches on the back that allow you to set it for the type of computer you are using. For the Mac II, set the Monochrome/Normal switch to Normal, set the Input Signal switch to Analog, set the Scan Mode switch to Over and adjust the horizontal and vertical size and position by turning the appropriate knobs. The brightness and contrast controls are on the front, where they are easily accessible. As with the Sony, be sure your dealer can supply you with the correct cable to connect it to the Mac. The Thomson also has a standard power cord and will not plug into the back of the Mac unless you buy a special cord.

The Thomson displays some pincushion effect, which, like the Sony, can be eliminated with a simple internal adjustment. Again, it requires removing the case, so it might be best to have your dealer do this.

Unfortunately, even after it has been properly adjusted, the Thomson display is clearly, or should I say unclearly, inferior to both the Apple and Sony displays. Text in particular appears rather unfocused and blurry; if you do much word processing, I think you would find this display unsatisfactory.

Once you move to color (by going to the Mac's Control Panel), the Thomson looks better. The color saturation is very good. Even in color, though, it's not as clear as the Apple and Sony displays. Like the Sony, it has a non-glare surface, but the Sony's is more effective.

According to the warranty card on the evaluation unit we received, the Thomson has a one-year warranty covering parts and labor for everything except the picture tube and parts only for the picture tube. Company representatives, however, report, that policy has changed and that the warranty now covers labor as well as parts for the entire device.

Conclusions

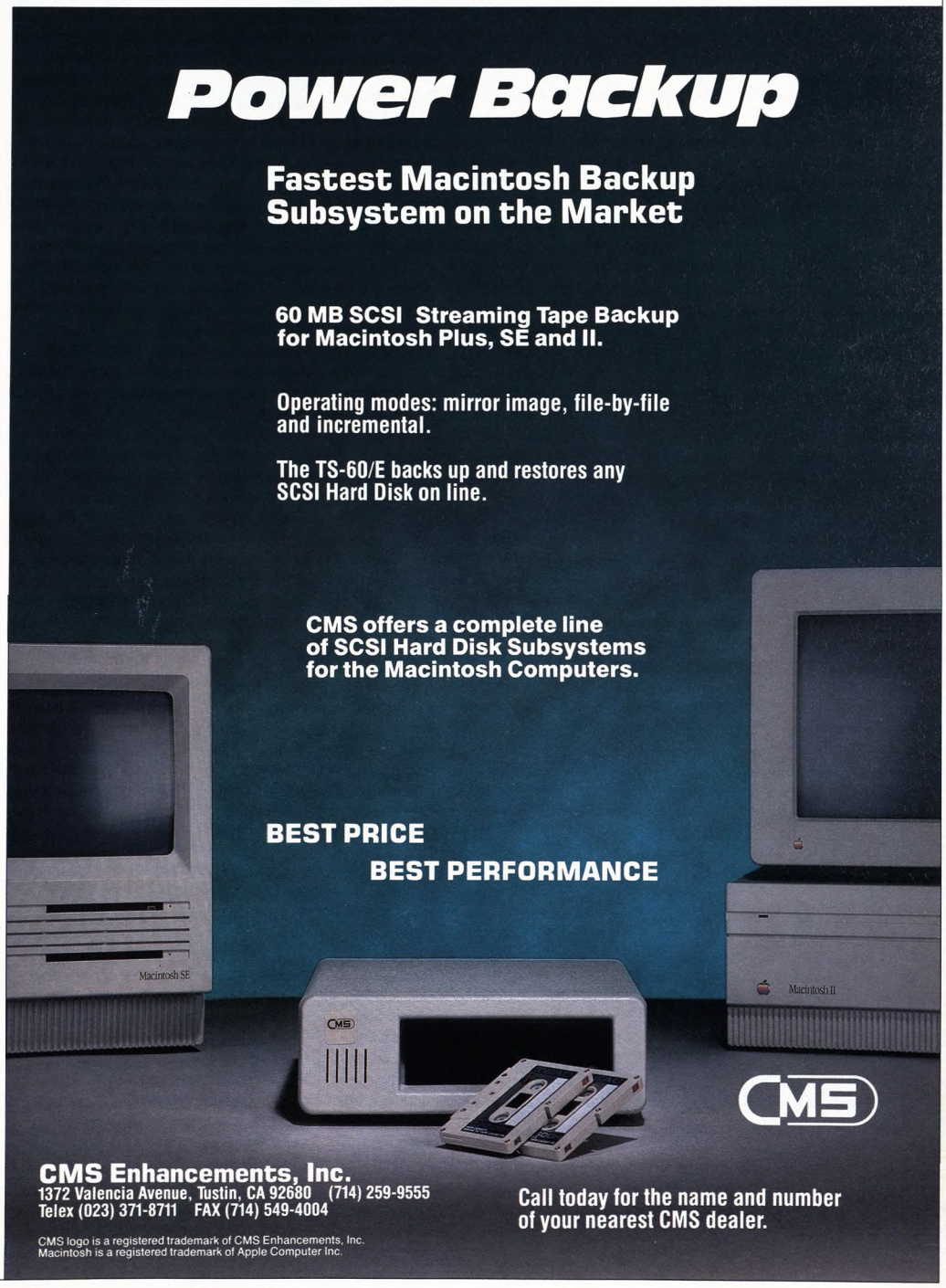
If you're only going to have one monitor, stick with either the Sony or the Apple. The Apple matches the Mac II a little better, and comes with Apple's "seal of approval."

The glossy screen, however, may cause glare problems in many environments, and the unit carries only a 90-day warranty. The Sony has a non-glare screen, and comes with a one-year warranty (two years on the picture tube). It requires some initial adjustment, but that's a one-time thing. The Thomson might be acceptable as a second monitor.

List prices for the Apple and Sony displays are close, but the Sony is widely available in discount outlets for $650 to $700 — considerably less than Apple dealers usually charge. The Thomson's "street price" is even lower, which might make it an acceptable choice as a second monitor for color graphics if you have the Apple monochrome display for text.

My personal favorite is the Sony; I hate glare. But the best part is that you have a choice. The open Mac is here to stay. ■

Jan Eugenides, Senior Software Engineer at Solutions Inc., was formerly Technical Editor at Nibble Mac magazine. He has written several commercial and shareware utilities for the Macintosh.


Power Backup
Fastest Macintosh Backup Subsystem on the Market
60 MB SCSI Streaming Tape Backup for Macintosh Plus, SE and II.
Operating modes: mirror image, file-by-file and incremental.
The TS-60/E backs up and restores any SCSI Hard Disk on line.
CMS offers a complete line of SCSI Hard Disk Subsystems for the Macintosh Computers.
BEST PRICE
BEST PERFORMANCE
Macintosh SE
Macintosh II
CMS
CMS Enhancements, Inc.
1372 Valencia Avenue, Tustin, CA 92680 (714) 259-9555
Telex (023) 371-8711 FAX (714) 549-4004
Call today for the name and number of your nearest CMS dealer.
CMS logo is a registered trademark of CMS Enhancements, Inc.
Macintosh is a registered trademark of Apple Computer Inc.

In search of le mot juste

BY JEFFREY BARTLETT
Special to MacWEEK

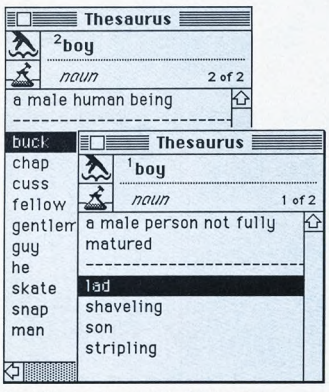
William F. Buckley claims that using an electronic thesaurus has changed his life. Will it change yours? Probably not, at least not much. But you might find it convenient to have one available if you are looking for a way to add some variety and precision to your prose and you find it cumbersome to deal with that musty old Roget's on your bookshelf.

With the release of Word Finder from Microlytics Inc. and Coach Merriam-Webster Thesaurus 2.0 from Deneba Software, you now have two convenient options, both Desk Accessories that work interactively with your word processor.

Each product has a comprehensive word list (larger than most electronic spell checkers) that is neither too common to need elaboration nor too specialized for general users. Word choices are arranged according to shades of meaning as well as parts of speech. Coach also offers an optional short definition for each group of words.

Spreading out

Although it fits unobtrusively into your system, a thesaurus needs plenty of disk space to store its large vocabulary. Word Finder includes two versions, one with 220,000 synonyms (325 Kbytes) and a small one of 120,000 (160 Kbytes). If you use the program at all, it would be worthwhile to find space for the larger version. Coach's 245,000 synonyms fit in 204



Coach Thesaurus' word list is slightly archaic.

Kbytes, but its file of definitions requires another 140 Kbytes. In terms of RAM, each will load in as little as 30 Kbytes of memory.

Both thesauri retain formatting such as font, style and capitalization when substituting words. They ought to run with any program that accepts Desk Accessories, and I found both to be compatible with MacWrite 4.5, Microsoft Word 3.0, T/Maker's WriteNow and MindWork Software's MindWrite. The Coach Thesaurus (a direct descendent of a program formerly marketed by Target Software under the name Merriam-Webster Thesaurus for Work 3.0) also can run as a component of Deneba's forthcoming Spelling Coach spell checker (the successor to MacLightning).

While the two word lists are of similar size, the differences between them are striking. When we looked up "boy," Word Finder offered 16 choices, only two of which appeared among Coach's 14 alternatives. Word Finder's list, compiled by Microlytics, is more contemporary and sometimes colloquial, while Coach's tends toward more traditional and even archaic suggestions.

Trade offs

The two programs differ in other ways, too. Word Finder has a customizable keyboard equivalent for its principal command, Lookup, but committed keyboardists might regret that it requires the mouse for functions like Find and Replace. Coach offers Command-key combinations for all these options, but they use the number keys, which are not at all mnemonic, and they can't be reconfigured.

Coach's windows, with clickable icons and definitions, have room for only four or five synonyms; to get more alternatives, you have to scroll horizontally or vertically, or open another window. Word Finder has only a single, less elaborate window, but it has room for dozens of choices. By default, it appears in the half of the screen opposite to where the highlighted word is (so you can see the context), or you can set it to appear always at the top or bottom of the screen. Coach's window always opens in the same place — sometimes on top of the sentence you want to modify.

Deneba touts Coach as the only thesaurus with definitions — a plus when you're unsure of the nuances of meaning. Coach can read verb forms like "give up," "look at" and "put on" if you type both words in the Find box. Word Finder has no way to deal with these common occurrences.

Coach merely beeps when it encounters a word it doesn't know. Word Finder, on the other hand, shows the 24 words alphabetically nearest to the selected word. This lets you use the thesaurus as a low-level spelling checker; if you're off by a letter or two on a word in its dictionary, the correct one probably will show up in the list. (Microlytics provided spell-checking technology as well as a thesaurus for FullWrite Professional and is working on its own interactive Desk Accessory spell checker scheduled for release in 1988.)

Word Finder's Last Word button is another useful addition. The program lists the last 10 words queried so you can go back to one if you want to cancel a change. This works even after the Undo option is exhausted.

Neither product deals reliably with suffixes showing tense or number, nor with adjectival and adverbial endings on some words. Sometimes you can solve the problem by not highlighting the suffix when selecting the original word, or by adding the endings after pasting in the alternative. This is a minor drawback, but one you will often run into.

Both programs default to simpler forms of words they don't have. Seeking a synonym for "boyish," you get "boy" — an unhelpful solution. If you look up alternatives to "horizontally," neither program will offer alternative adverbs: Word Finder gives synonyms for "horizontal," while Coach gives only words for "horizon." On the other hand, if you look up "swimmingly," Coach gives a good selection of appropriate alternatives, whereas the Microlytics program offers synonyms — and strange ones at that — only for the root word "swim."

Each program has a few other quirks. Both beep too often — whenever you look up a word, and in the case of Word Finder whenever you first call it up. In a few instances, Word Finder's procedures are inconsistent: In the Last Word window, double clicking on a word brings up its synonyms, but in the main window, double clicking on a word enters it into your text in place of the word you started with. If you forget to select the word you want to check before you call up Word Finder from the Apple menu, don't try to correct your mistake by double clicking on the word as the thesaurus is loading — we did, and the machine froze up, leaving us no alternative but to reset.

If you double click on one of the synonyms in the list, the program enters it in place of the word you originally selected to look up. But when we clicked on the paste-pot icon, which is supposed to do the same thing, Coach typed the new word into the application window immediately under the icon! If you change your mind after entering a synonym from Coach into your text, the Undo command will get rid of the new word, but won't restore the old one; in Word Finder the original word is brought back.

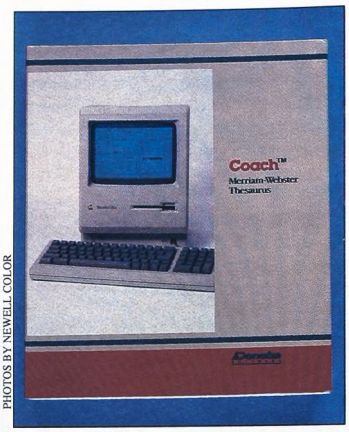
Apple warns that Desk Accessories interacting directly with an application program may not work under the soon-to-be released MultiFinder. Both thesaurus makers, however, said they have found a way around the problem, and our tests with the latest available prerelease version of MultiFinder appeared to support their claims. With Coach you simply use the Font/DA Mover to install the accessory directly into the applications where you will use it; Word Finder works with no special procedures. ("We're smiling from ear to ear," said a Microlytics spokesman.)

To narrow it down

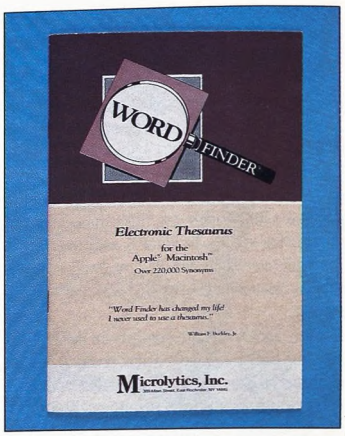
Word Finder is more straightforward than Coach in several areas, and it runs slightly faster. Coach is flashier (allowing you to scroll horizontally between defined groups in a window), and its definitions and meaning groups may make it more helpful for less experienced wordsmiths. Both are priced at a reasonable $59.95.

Is either one a worthwhile acquisition? Neither will necessarily make you a better writer. On the contrary, some thesaurus-users may sabotage their prose by filling it with obscure or pretentious terms they would never have thought to use. But if you ignore its limitations and restrain yourself, an on-line thesaurus can sometimes lead you out of a minor writer's block or jog your memory, giving your sentence that forgotten term that fits exactly. If having the support of a thesaurus lets you approach your writing tasks with confidence, either one will handle the job well. ■

Jeffrey Bartlett, Ph.D., is a freelance editor in the San Francisco Bay Area.



PHOTOS BY NEWELL COLOR



Coach Thesaurus

Deneba Software
7855 N.W. 12th Street, Suite 202
Miami, Fla. 33126
(800) 622-6827; or (305) 594-6965
Retail price: **$59.95**
Strengths: Large word list; easy substitution; multiple windows; brief definitions.
Weaknesses: Vocabulary somewhat old-fashioned; limited Undo function; doesn't handle suffixed words intelligently; requires special installation under MultiFinder.

Word Finder

Microlytics Inc.
300 Main Street, Suite 126
East Rochester, N.Y. 14445
(716) 377-0130; (800) 828-6293
Retail price: **$59.95**
Strengths: Large and modern word list; easy substitution of synonyms; Last Word feature allows review of previous queries; seems to work normally under MultiFinder.
Weaknesses: Doesn't handle suffixed words intelligently; beeps too often.

Word Finder's synonyms for "swimmingly."

swim:	WORD FINDER® from Microlytics™
verb	gyrate, pirouette, purl, reel, spin, turn, twirl, whirl.

The MIS Manager's Resource for Macintosh Professionals

Call Zigurd Mednieks
(Author of C Programming Techniques for the Macintosh)
MURSU Corporation
(617) 424-0146
25 Exeter Street, Boston, MA 02116

CompuNet Connector
LOW COST—HIGH QUALITY

AppleTalk PhoneNet™ compatible network connector. Uses standard telephone wire. No special hardware required for 3000 ft. AppleTalk networks. $24.95 retail. SCSI Cables 25-50 & 50-50 UL. $24.95 retail. Dealer inquiries welcome.
Trimar USA Inc., 236 W. 15th St., New York, NY 10011, 800/872-4454, 212/645-7008

C-D ROM
NOW... FOR THE MAC +
NEW! C-D ROM PLAYER **TOSHIBA** $1095.
600 MEGS OF READ ONLY DATA STORAGE IN 1 C-D
NEW CD ROM TITLES: CLIP ART SERVICES
LAW + SCIENCE + MEDICAL SUBSCRIPTIONS
FINANCIAL - STOCK - ON LINE DATA BASE
BUSINESS / HOME REFERANCE LIBRARIES
MAC C-D LABS
INFO: 503 667-9340 COMPU- 70707,1004
LOCAL AREA: *SALES REPS* WANTED

the typefaces of desktop publishing

Virtually every PostScript font is beautifully displayed and documented in this informative HyperCard stack. For each type family, all styles and a full alphabet are shown. You will also learn the history and mood of every font, plus usage hints, technical data and vendor/pricing information!

The Typefaces of Desktop Publishing
• 800k HyperCard stack - $15.00 (REG 24.95)
Desktop Publishing Type & Graphics
• 300 page book stack is based on - $29.95
• **Stack & Book Combo** - $39.95

Publishing Resources Inc.
Boulder, Colorado (303) 442-1100
Orders: 1-800-553-1666

50% OFF Desk Top Accessories

Amber Filter ----------$15.95
For heavy Macintosh users. Reduces eye fatigue.
Deluxe Printer Stand ----------$29.95
Good for 80- or 132-column printers. Solid one-piece, clear acrylic with paper guide. Reduces noise. Suggested retail price $60.00

Frt. prepaid on $50.00 or more
Orders Only 800-634-5463 x 320
Customer Service 617-683-2325 Visa/MC
DMS, Box 785 Middleton, MA 01949

SALES PROFESSIONALS NEEDED
Sales professionals with experience in Macintosh, business sales and graphics/presentations needed by growing Macintosh specialty systems house. Immediate positions in the San Francisco Bay Area, possible national positions in near time frame. Send resume, salary history, your questions and three references to:

Personnel Director
2280 Bates Avenue, Suite J
Concord, CA 94520

SALES PROFESSIONALS
Peripherals Computers and Supplies, Inc., a VAR for Apple Computer, is looking for aggressive, experienced sales professionals to represent the Macintosh II in the corporate workstation market. The ideal candidate will have a solid knowledge of Macintosh applications, including telecommunications, and experience with mini/mainframe graphics software. Please send resume and salary/commission requirements to:

P.C.S., Inc.
2457 Perkiomen Avenue
Reading, PA 19606

TAX DEDUCTIBLE!

Non-profit wildlife organization needs equipment to produce student publications, nature newspaper and set up BBS.

Wishlist is: MAC II system, LaserWriter Plus, copy machine, image and text scanner and modem.

Call (415) 355-8808.

HyperCard Users
Increase Your Productivity

FREE Catalog of New HyperCard Products and Discount Software

Call 206-946-2011

HyperSource
2619 South 302nd Street
Federal Way, WA 98003

Dealer and HyperCard Developer Inquiries Welcome

DIRECTORY
OF HIGH QUALITY POSTSCRIPT® PRINTOUT SERVICES

Over 200 detailed listings of firms that output DOS or MAC files
Check or money order for $10 to:
TypeWorld
P.O. Box 170, Salem, NH 03079
No phone orders, please

We've got 'em!

Upgrade to 2.5, 4, 5 or 8 megabytes for $249 per megabyte with low-power, surface-mounted one MEG SIMMs from Turbo Technologies, Inc.

We cater to corporate buyers.
If you buy 100 SIMMs at regular price, we will send a technician to your site to install upgrades.

Call 800-542-SIMM (800-542-7466) to order today.
In New York, call (516) 625-3258.
Available NOW! NYS add 8% sales tax.
Serving Macintosh owners since 1984.
Please call for dealer pricing.

Turbo Technologies, Inc.
78 Maple Street
Roslyn Heights, NY 11577

LUCRATIVE BUSINESS OPPORTUNITY AVAILABLE

Growing multi-million dollar Macintosh specialty firm requires agents to sell products to business and individual professionals. Products are proprietary including Apple Macintosh systems and full Apple Computer authorization and service. Agency must have good business history, and experience with Macintosh technologies. Firms encouraged. Current operation of Macintosh oriented business highly desirable. Benefits include: Apple authorization for sale and service through us, training for service and support, financing plans, inventory flooring plans, proprietary products, and group financing and purchasing leverage with vendors. Send personal and business resumé, sample of advertisement, photographs of operation to:

New Business Manager
390 Grand Avenue, Suite 3
Oakland, CA 94610

Limited areas available, first respondents viewed favorably. Serious inquiries only.

Learn Scripting in HyperCard With
HyperTutor™
The Interactive HyperTalk Tutorial & On-Line Scripting Guide

- **Written In HyperCard**
- **Covers All Commands**
- **Includes Undocumented Features**
- **Easy and Fun to Use**
- **For Beginners & Programmers**

Send Check or MO for $49.95 + $2.50 S&H
(California Residents Add 6% Sales Tax)
teligraphics
936 Sir Francis Drake, #R
Kentfield, CA 94904
Information: (415) 454-7519

We're Calling Your Macintosh!

MacHeaven is purchasing all types of Macintoshes, and most peripherals. Prices fluctuate daily, so call now...

(703) 528-4043

MacHeaven Awaits!

Macintosh Development

Trace, Inc. offers Macintosh software design and development by the foremost Macintosh development team in the Washington, D.C. area. Take advantage of our experience with business and industrial applications as well as systems software.

Call John Hayes at **(703) 528-8838** today to discuss how we can assist you.

Excellent references available.

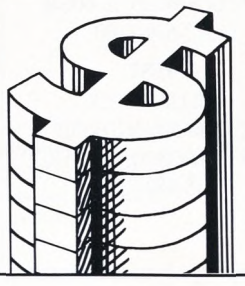
THE **Chip MERCHANT**

1 Meg Simms
for Macintosh Plus, SE or Mac II
120 ns only **$219.00**
Video RAM for Mac II (D41264C-12)
$45 per set of 8

5 year guarantee on manufacturer's defects and chip failure
Other chips available
All chips new

Prices subject to change without notice.

CALL (619) 268-4774
5797 Chesapeake Court, San Diego, CA 92123



SELL YOUR INVOICES FOR FAST CASH.

Cash in 24 Hours • Bank-to-Bank Wire Transfer
No Contracts to Sign

Receivable Funding Corp.

Call Mr. Forde Toll-Free 1-800-221-3136

Corporate Training
Macintosh/IBM PC
from
Computex, Ltd., a public corporation

We offer computer training at our headquarters, mid-town NYC, on-site, or in our Comp-U-Van (10 networked units/laser printers).

- **Executive Workshops**
- **Support Staff Training**
- **Intro. to the Mac**
- **M.S. Word/Excel/Works**
- **DoubleHelix/FileMaker**
- **PageMaker, Ready-Set-Go**
- **DOS/Ventura/WordPerfect**

— 212-661-5770 —

Don't Get ZAPPED
Insure your computer against accidental loss of data or loss of custom programs. As low as $35 per year from Data Security Insurance.

Don't Get FIRED
Insure your computer against loss from fire or damage. The Data Security Insurance Policy includes essential coverages not available with other policies.

Don't Get RIPPED OFF
Insure your computer against loss from theft and fraud. Call today for immediate protection: Data Security Insurance (800) 822-0901.

MacWEEK every week.

TO PLACE CLASSIFIED ADVERTISING IN MACWEEK...

- ☐ Orders for classified advertising are accepted 10 working days in advance of issue date. Minimum order: Two inches (service rate $60/inch; recruitment rate $50/inch). Agency discounts not applicable. Refer to Classified Rate Card for frequency discounts.
- ☐ MacWEEK accepts Visa, MasterCard, check or money order as payment for classifieds.
- ☐ Advertisers may send camera-ready artwork or copy to be typeset by publisher at no additional charge.
- ☐ To place your ad, call Cynde at 415-882-7370 today.

MACWEEK ADVERTISING SALES OFFICES

EAST
BRICE HEREFORD
ONE KENDALL SQUARE
CAMBRIDGE, MA 02139
617-577-1033

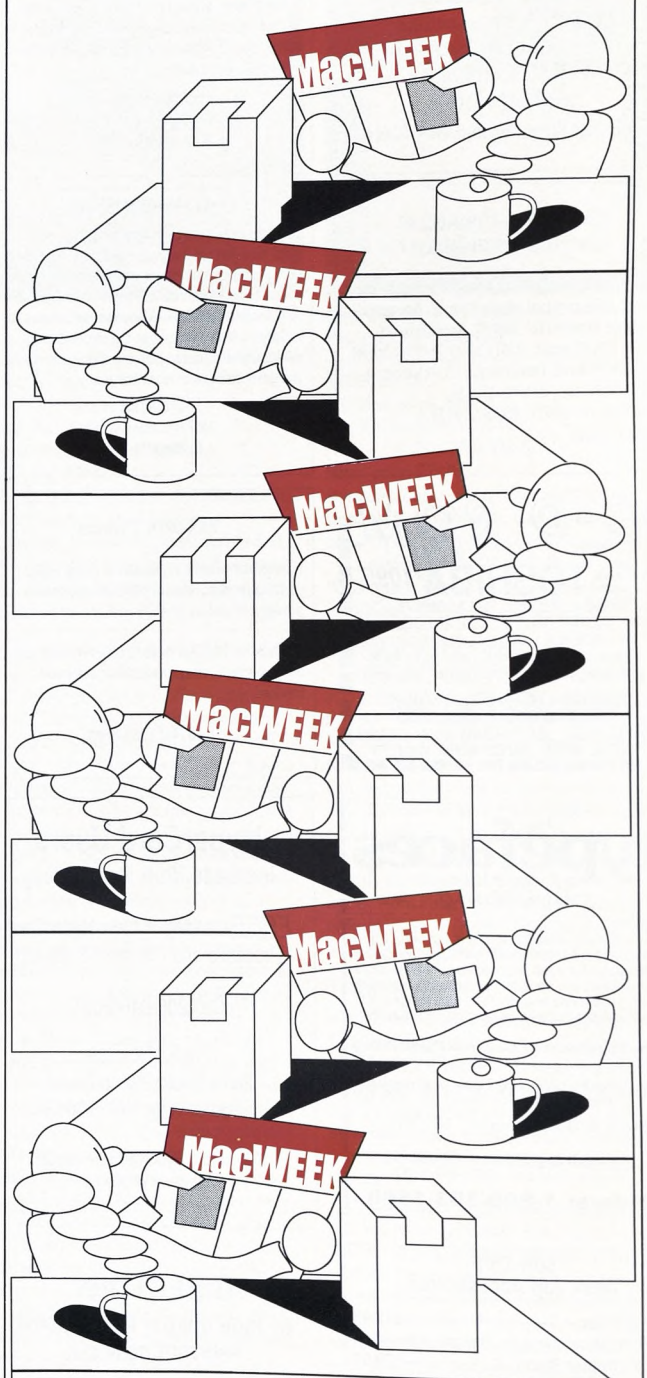
NANCY CARTER
123 EAST 83RD STREET
NEW YORK, NY 10028
212-734-6965

CENTRAL
MARY JO O'NEILL
4761 WEST TOUHY
LINCOLNWOOD, IL 60646
312-679-1100

WEST
WILLIAM PECK
525 BRANNAN STREET
SAN FRANCISCO, CA 94107
415-882-7370

If it's Tuesday,

it must be MacWEEK...



...the weekly source of news and information for more than 40,000 professional Macintosh users.

LaserPerfect typography

Distinctive downloadable fonts, scalable to any size. Foreign, specialized and fine typography for PostScript printers.

Shown:
1/MacSlab 2/Ambo italic
3/Garajon 4/OCR-A
5/Benares 6/Ambo
7/Phonetique 8/Norfolk
9/Hebrew

Call or write for free brochure and samples:
NeoScribe International
P.O. Box 633
East Haven, Conn. 06512
(203) 467-9880

Rodime 20 Mbyte hard drive: $499

MacProducts USA
1-800-MAC-DISK
Visa, MasterCard, COD, POs and checks accepted.
Prices are subject to change and items are subject to availability.

MacProducts USA
9709 Brown Lane
Austin, Texas 78754

National: Call 1-800-622-3475.
Texas: Call 1-800-2MAC-TEX.

Minicad 2-D/3-D, Version 3.0: $495

Minicad's Mac-designed interface combines ease-of-use with powerful high-precision CAD capabilities. Minicad has nine decimal-place precision, 40 color layers, eight line types, symbol library, double line tool, fillets, rotating text, auto-dimensioning and auto-alignment, MacDraw, clipboard and Mac II compatibility, total integration of 2-D and 3-D files plus more. Even without 3-D, Minicad's still an extremely powerful desktop tool — your best buy for the money.

IGES translator available. Demo $19.00.

Diehl Graphsoft, Inc.
8370 Court Ave., Suite 202
Ellicott City, Md. 21043
Attn: Diane M. Reynolds

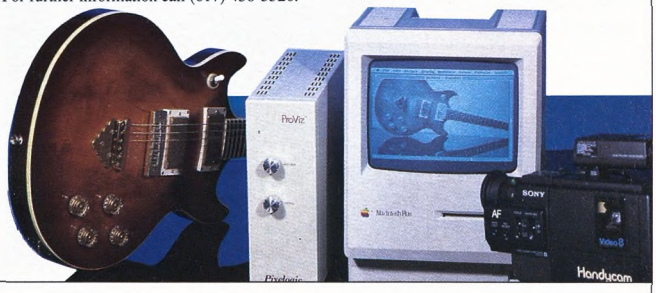
ProViz captures video images

The excitement and power of real-world images can now be added to your desktop publications with Pixelogic's new ProViz video digitizer. ProViz is the first high-resolution, real-time digitizer for the Macintosh Plus, SE and II and can produce screened halftones from either flat copy or any standard video source: camcorders, VCRs or even broadcast TV.

Simple to operate, ProViz is a SCSI peripheral device that "frame grabs" images for use with all leading page-composition software packages. ProViz also works with Apple's HyperCard.

ProViz is available immediately and retails for $1,595.

For further information call (617) 438-5520.



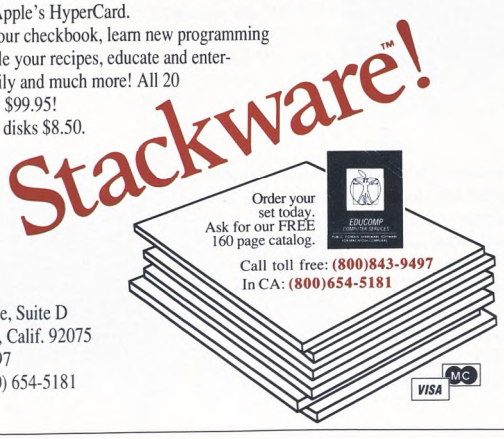
15 Mbytes of Stackware

Whether you're a business person, publisher, student, parent or hacker, there's something for you in the EDUCOMP StackPak!

You'll receive 20 double-sided disks filled to the brim with "stacks" for Apple's HyperCard.

Balance your checkbook, learn new programming techniques, file your recipes, educate and entertain your family and much more! All 20 disks are only $99.95!

Individual disks $8.50.

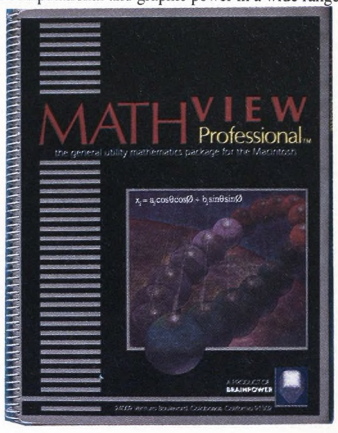


EDUCOMP
Dept. A
742 Genevieve, Suite D
Solana Beach, Calif. 92075
(800) 843-9497
In Calif.: (800) 654-5181

Powerhouse for math professionals

Speed and accuracy accent this stand-alone package for those who use math every day.

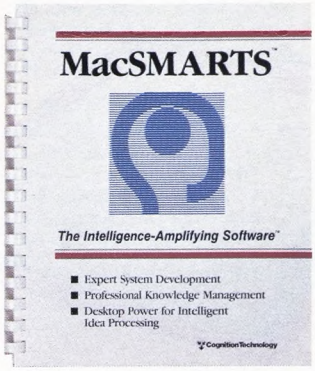
MathView Professional delivers tremendous computational and graphic power in a wide range of mathematics, including two- and three-dimensional graphing and plotting; matrices; algebraic systems; integration; differentiation; partial differentiation; complex roots and powers; fast Fourier transforms; statistics; function evaluation; and more!



BrainPower, Inc.
24009 Ventura Blvd., Suite 250
Calabasas, Calif. 91302
(818) 884-6911

Expert system manages knowledge

MacSMARTS gives you the power to communicate and manage your most important strategic resource: Knowledge.



- For training: Help your new hands perform like old pros.
- For problem solving: Save time with an intelligent guide to solutions.
- For automating complex procedures: Achieve consistent peak performance.

Join ARCO, DuPont, GTE government agencies on four continents and hundreds of professionals in putting MacSMARTS to work.

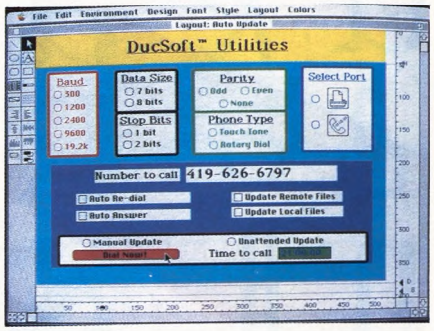
MacSMARTS: $149.95.

Call (800) 622-2829 (in Massachusetts, call (617) 492-0246), to find out how MacSMARTS can sharpen your competitive edge.

Cognition Technology Corp.
55 Wheeler St.
Cambridge, Mass. 02138

Help for 4th Dimension

Ducsoft Libraries for 4th Dimension are timesaving and educational aids. They include ready-to-use applications, procedures and layouts that can be cut and pasted directly into your own work. The documentation lists each procedure used and fully explains how it works, along with its associated layout(s).



Beginners can learn 4th Dimension more quickly by dissecting the many examples.

Developers can save time by using the external procedures and mini applications as a template for their development work.

Retail $129.

Ducsoft Inc., 238 Columbus Ave., Sandusky, Ohio 44870 (419) 626-6797

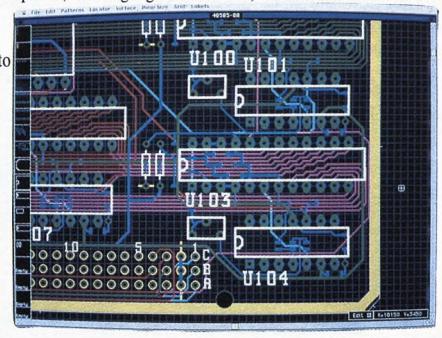
New, fully-integrated CAD/CAM

Schematic capture, layout and autorouter make the Douglas CAD.CAM professional system the first fully-integrated printed circuit board design and manufacturing package for the Macintosh.

The software supports the Macintosh II, color and unlimited multilayers. Maximum layout size is 32 inches by 32 inches. Output is to printers, pen plotters and photoplotters.

Layout - $1500. Schematic capture (including digital simulation) - $700. Autorouter - $700. Full-featured demo disks are available for $25.

For more information and to place your order, contact:



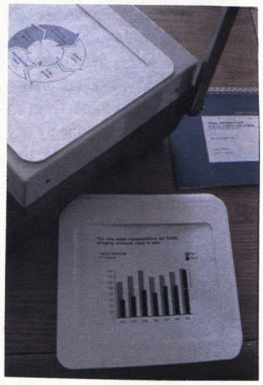
Douglas Electronics
718 Marina Blvd.
San Leandro, Calif. 94577
(415) 483-8770

Top-quality presentations system

Visual Presentations (ViP) is the high-speed production system used in top management consulting firms and corporations to produce high-quality business presentations. ViP incorporates well-tried principles of presentation design, and provides an integrated set of tools to produce clear and consistent presentations that get the message across.

The ViP System runs on the Macintosh SE and Plus, supports popular 19-inch monitors, and is priced at $6,250 for a single unit (volume discounts available).

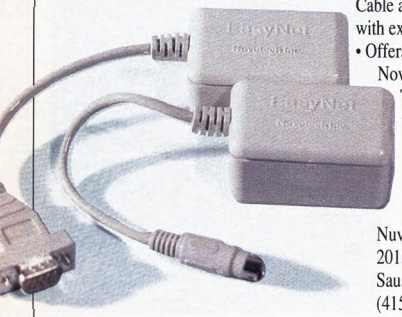
Capture the quality, clarity and productivity of ViP for all your presentations. Call today.



Thought Leaders, Inc.
300 Broad St.
Stamford, Conn. 06901
(203) 357-9701

The EasyNet Advantage

The EasyNet System allows you to create a full-speed AppleTalk network that:
• Has the convenience and flexibility of using ordinary telephone wire and positive locking RJ11 modular connectors. • Dramatically reduces the wiring cost of installing a local area network, in most cases running through existing wiring in your office or home. • Allows you to build AppleTalk networks up to five times the length of Apple's — up to 5,000 feet. • Is compatible with all Apple hardware, software and third-party AppleTalk products. Special EasyNet Adaptor Cable allows combination of EasyNet connectors with existing AppleTalk network connectors.



- Offers new dealers a special during the month of November. Call for more information.

To inquire about a dealer near you, or for more information, call or write today.

Nuvotech, Inc.
2015 Bridgeway, Suite 204
Sausalito, Calif. 94965
(415) 331-7815

Disk organizer/ribbon inker

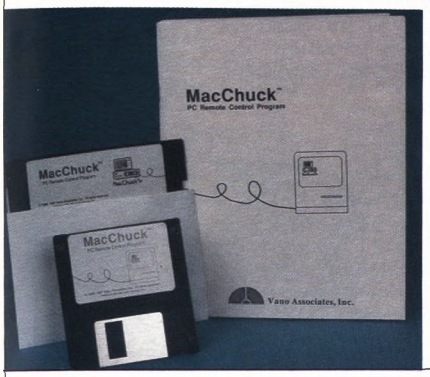
Cost-effective disk organizers save time and space. Sturdy 200-pound test cardboard, dividers, lid. High gloss white or wood grain satin finish.
100 3.5" disk organizer $7.45, 4/$24.95.
50 3.5" disk organizer $4.45, 4/$14.95.
100 5.25" disk organizer $5.45, 4/$19.95.

Don't throw away expensive ribbons when you can ink them again and again for just pennies each time! You'll love the savings — and the printing quality.
FREE 4-ounce black ink lasts 50-100 re-inkings.
ImageWriter Printer Inker Kit $49.00.
Epson Printer Inker Kit $52.95

Order by phone with MasterCard or Visa
800-722-4536. In Ohio, 216-631-4214
Bede Tech, 8327 Clinton Road, Cleveland, Ohio 44144

Put your PC into a Macintosh window

MacChuck puts your PC into a window on the Macintosh. Use MacChuck to run alphanumeric PC programs from the Mac's keyboard and screen. MacChuck lets you use Copy and Paste with PC programs or capture PC screens as MacPaint pictures. MacChuck transfers files between your Macintosh and PC at extremely high speeds. Call or write today for more information.



MacChuck program — $79.95
(Available now!)
Demo — $5.00
Universal cable — $34.95

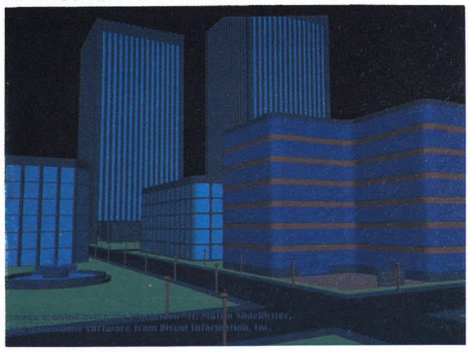
Vano Associates, Inc.
P. O. Box 12730
New Brighton, Minn. 55112
(612) 788-9547

Power 3-D CAD and presentations

Dimensions sets the standard other 3-D design and imaging systems follow.

With Design Dimensions, you have professional 3-D CAD and visualization. With Solid Dimensions, you receive superb imaging, animation, and presentation solutions. Dimension links to most Macintosh and PC 2-D drafting programs via PICT and DXF and to MSC/pal for finite element analysis.

From design and analysis to client/advertising presentations, Dimensions offers the complete CAD solution.



Visual Information, Inc.
16309 Doublegrove
La Puente, Calif. 91744
(818) 918-8834

Pictorial data base management

Business Filevision, the only pictorial database management system for your Macintosh, lets you store and work with information in pictures as well as numbers and text.

Business Filevison combines the creative features of a drawing program with the advanced capabilities of a data base program. Import scanned or digitized images created in other programs or use the powerful drawing tools provided in Business Filevision.

Call or write for a free 20-page booklet and a catalog of more than 100 public domain files developed using Filevision.

Marvelin Corp.
3420 Ocean Park Blvd., Suite 3020
Santa Monica, Calif. 90405
(213) 450-6813

The scanner you've been waiting for

You no longer have to spend $2,500 to own a high-performance page scanner. MacScan with its $1,547 list price changes that...and it's faster, smaller, and has better software, too!

- 300-dpi resolution;
- Scans entire page in less than 15 seconds;
- Saves in 10 different formats;
- Macintosh Plus, SE and II compatible;
- Complete 300-dpi editing tool box.

Please call or write today.

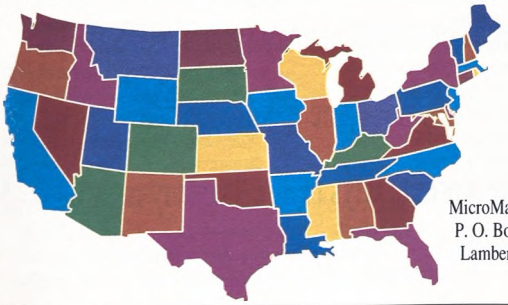
New Image Technology, Inc.
10300 Greenbelt Road
Seabrook, Md. 20706
(301) 464-3100
Fax: (301) 46404324

Put your Mac on the map

MacAtlas Professional Version is a comprehensive collection of clip-art maps that can be customized to meet the specific needs of your projects. Customized maps make attractive graphics for publications, business presentations, advertising, and educational materials.

MacAtlas Professional Version contains more than 60 maps in Draw format; the United States by state, each state by county and world regions by country. Major cities, state names and country names are included on the maps. All for only $199!

To order MacAtlas or request our free brochure, call (800) 334-4291. In New Jersey, call (609) 397-1611.



MicroMaps
P. O. Box 757
Lambertville, N.J. 08530

Market, political and social surveys

MaCATI is the most extensive computer-assisted telephone interviewing system on the Macintosh. Now available after two years in development and testing at one of the largest university survey research centers, MaCATI is the ideal tool for social and market research, political polling and some forms of telemarketing.

MaCATI handles automatic phone dialing; can be networked; handles skip patterns; maintains call records/appointments, statistics, with a 500 question limit.

$795 Editor, Utilities and two Fielders. $200 each additional Fielder.

PSRC Software
Population and Society Research Center
Bowling Green State University
Bowling Green, Ohio 43403
(419) 372-2497

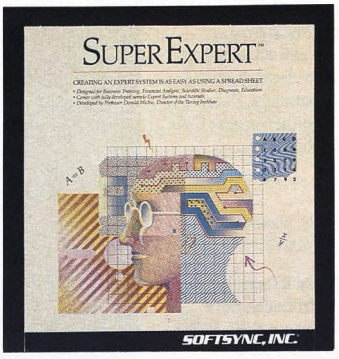
What's an expert system?

An expert system is a program providing knowledge and experience without an expert being present. Some uses of expert systems are: technical support, sales training, medical diagnostics and financial analysis.

SuperExpert is an expert system development tool. Enter or import examples or historical data and the program creates the expert system for you! No experience with expert systems or programming is required.

$199.95 (Suggested retail).

To find out how Super Expert can work for you, contact:



Softsync, Inc.
162 Madison Ave.
New York, N.Y. 10016
(212) 685-2080

9-track tape subsystem for the Mac

Bridge the Macintosh communications gap with mainframes, minicomputers, microcomputers and networks.

Qualstar's proven half-inch nine-track MINISTREAMER tape subsystem brings full ANSI data interchange to the Macintosh via your SCSI interface port. Now you can exchange date files with virtually any other computer using industry standard 1600 BPI(bits per inch) or 6250 BPI tape. Exclusive QUTAPE software includes ASCII/EBCDIC data conversion, data transfer, blocking/de-blocking, screen dump and disk backup utilities.

Discover the advantages nine-track tape has over other micro-mainframe links. Call us today!

Qualstar
9621 Irondale Ave.
Chatsworth, Calif. 91311
(818) 882-5822

Professional CAD/CAM for Mac

MGMStation is a full-featured, computer-aided design and manufacturing software tool that enables even novice users to produce high-quality drawings without prior computer experience. Experienced draftsmen will find that MGMStation's uniquely enhanced interface adds unsurpassed versatility. Industry leaders are already calling it "the most easy-to-use, powerful and cost-effective small computer design and drafting system on the market." (C. Walters, Design Edge)

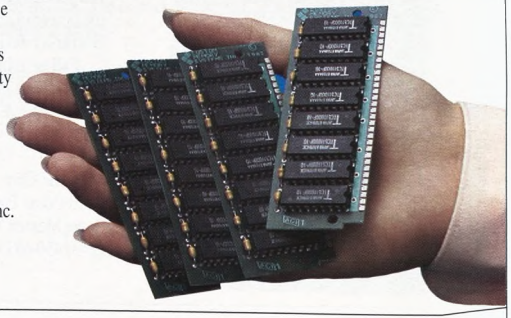
MGMStation is now available for $799 (suggested retail). Computer aided manufacturing software is available as well. For further information, contact:
Micro CAD/CAM, Inc.
5900 Sepulveda Blvd.
Van Nuys, Calif. 91411
(818) 376-0008

Add memory to your Mac

Add 2 or 4 Mbytes for your Macintosh Plus and SE; 4 or 8 Mbytes for your Macintosh II.

The new SIMM modules from Custom Memory Systems provide breathing room for your Mac. These powerful 1 Mbyte per board SIMMs (Single In-line Memory Modules) give you the necessary memory capacity to take advantage of the many new applications — like HyperCard— becoming available for the Macintosh. Our SIMMs give you these advantages:

- ☐ Very low power requirements (CMOS technology)
- ☐ Less noise interference
- ☐ Low heat generation
- ☐ Four times fewer parts
- ☐ Much greater reliability
- ☐ Lifetime warranty



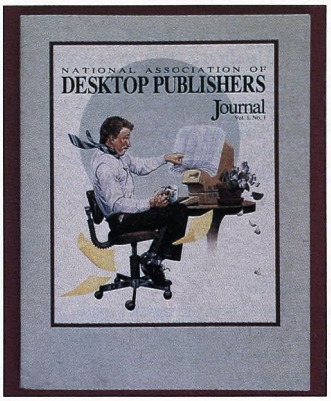
Call or write us today:
Custom Memory Systems, Inc.
826 N. Hillview Drive
Milpitas, Calif. 95035
(408) 263-8011

Join Desktop Publishers Association

Desktop publishing is changing the way people produce printed materials. The National Association of Desktop Publishers is showing people how to make the change. As an independent, non-profit association, NADTP is member oriented. Join the Association to stay abreast of this technological revolution.

Among the many attractive benefits of membership is subscription to the NADTP *Journal*. MacWEEK hailed the first issue as one that "covers some unexpected topics," and the *Boston Business Journal* said it "contains some truly enlightening articles."

For more information, write:



The National Association
of Desktop Publishers
P. O. Box 508
Kenmore Station
Boston, Mass.

MacWEEK Showcase Information

Rate: $450 per week (3-week minimum)

Words: 75 maximum, including name and address

Artwork: Color transparency (yours or ours)

Layout: None required

Closing:Nine working days before Tuesday issue date

MOTOROLA

Continued from Page 1

first company out with a product before all the bugs are out," said Jan Lewis, president of Jan Lewis Research of Sunnyvale, Calif. "The NuBus arbitrates between processors so well that you can have an '030 add-in board function practically as a motherboard."

Intel Corp. of Hillsboro, Ore., recalled its 80386-based personal workstation last summer when users complained of bugs in its design.

Last month, Motorola Inc. announced 20-MHz and 25-MHz versions of its 32-bit microprocessor, the 68030, claiming the chip is twice as fast as the 68020.

The 20-MHz chip is available now; the 25-MHz version will be sampled in December.

A Motorola spokesman said a 68030 workstation could cost as little as $2,000 because system designs wouldn't require extra components such as graphics coprocessors, memory management hardware and static RAM chips.

"When the 25-MHz version of the '030 ships, things should move," said John Hime, workstation marketing manager at Sun Microsystems Inc. of Mountain View, Calif. "A lot of our customers have been asking for the new chip."

More than 100 manufacturers offer 68000-based computers, according to Motorola. The Schaumburg, Ill.-based electronics company has shipped more than 10 million of the 68000 family of microprocessors, 1.2 million of them 68020s.

Sources said Apple's interest in the 68030 market could be a hybrid of the Mac II and Mac SE, but those plans are more than a year away.

"The Mac II is already powerful enough," said Jeffrey Tarter, an industry analyst and publisher of Soft•letter, a newsletter based in Cambridge, Mass. "Why make it obsolete in six months?" ■

CRASH

Continued from Page 1

overwhelming evidence of today's prosperity were soberly predicting a slowing of growth.

If they are right, COMDEX/Fall '88 will not match the scale of this year's event: 105,000 attendees viewing 1,500 exhibits spread out over 1.5 million square feet in seven halls.

"This is the picture of an industry in the prime of health," said Sheldon G. Adelson, chairman of the Interface Group, the producer of the COMDEX show, held here Nov. 2-6.

"To the practitioners of doom and gloom, the naysayers, the professional pessimists, I say, 'Get lost,'" Adelson said at a special session held to assess the impact of the market crash on the industry.

In his COMDEX keynote speech, Jim Manzi, president of Lotus Development Corp. of Cambridge, Mass., also minimized the impact of the crash, noting that "the relationship between the PC industry and the national economy has always been the opposite of what might have been expected."

He said that PCs were booming in 1981, when the economy was in recession, but that the industry suffered a severe shakeout in 1984, when the economy was taking off.

"We have everything going for us to do gangbuster business in the coming year, recession be damned," Manzi said.

But other observers were far less sanguine.

"There is a psychological effect," said Rick Inatome, chairman of Inacomp Computer Centers. "It would be foolish to think there won't be a dampening of capital spending."

"The stock market has forecast the last seven recessions," said Rick Sherlund, a software analyst for Goldman Sachs of New York. "There is no question that consumers are going to retrench and cut back purchases. When general retail sales dip, corporate profits dip and then capital spending will also dip."

Michelle Preston, a microcomputer analyst for Salomon Brothers of New York, said it will take at least three months, until companies announce results for the first quarter of 1988, before anyone will really be able to measure the impact. The business sector will stay strong for the next few months because of pent up demand for the new generation of computers, including Mac IIs, and because of the arrival of new operating systems and software, Preston said.

"It's ironic that the economy faces a downturn at the precise moment when our industry is coming to the marketplace with its first real breakthroughs in years," Lotus' Manzi said.

Besides a reduction in spending, observers are most worried about sources of financing for new companies and products.

"There is now virtually no capability to take companies public," said Gordon Campbell, president of Chips and Technologies of San Jose, Calif.

Sources of revenue for venture and secondary financing also have dried up, he said.

"Even companies with large cash reserves are going to be conservative in how they use them," he said, predicting reduced levels of spending, hiring and new product development.

Ken Wasch, the executive director of the Software Publishers Association based in Washington, D.C., said recent growth rates of 30 percent or higher may have raised unreasonable expectations.

"If we were in shoes or a smokestack industry, we would be thrilled with a 20-percent rate," he said.

Wasch also said that foreign investors, enticed by the current low value of the dollar, may be able to take up the slack. Furthermore, he contended that companies will not cut spending for computers at a time when they must find ways to increase productivity.

"Computers will be the last category of spending to be cut in a downturn, not the first," Wasch said.

Manzi said he was worried, however, that businesses may sharply curtail purchases because of "a fixation with reduced cost and increased productivity." ■

APPLE

Continued from Page 1

according to the number of new VARs and developers who sign up with Apple," said Apple's Bob Perez, a Macintosh evangelist.

The parade of developers in the booth included many previously alien to the Macintosh universe. "People who used to close the door in our face are now eager to develop for the Mac," said Randy Battat, Apple director of developer services.

To showcase its VAR efforts, Apple announced it has signed VAR agreements with Automatix Inc., Du Pont Biotechnology Systems, Interleaf Inc. and TechSouth Inc., each of which exhibited in the Apple booth.

"Apple invited us here as an example, to say to other potential VARS, 'Look what we can do for you,'" said John Bilby of Automatix of Billerica, Mass., which makes a rebuilt version of the Mac II for factory floor applications. As a bonus, Automatix generated sales leads from potential customers from companies such as Northrup and Lockheed, Bilby said.

Apple also announced plans to offer broader VAR services in 1988, including a comarketing plan and increased investment in sales and support.

"After the first wave of Macs, we have a lot of the horizontal applications covered. The next big effort will be to develop specialized solutions," said Erna Arnesen, Apple's VAR channel manager. She said the company is especially targeting resellers with expertise in publishing and printing, engineering, health care and professional services.

Other than the evangelists and VAR services teams, few of the company's top executives made an appearance.

"It's a pity when a company gets so big that its chairman doesn't show up unless he's the keynote speaker," said Esther Dyson, publisher of the newsletter Release 1.0. "Apple is not as strong as I expected. I thought there would be more of a push for HyperCard."

She noted that one of the highlight PC products announced at the show, Lotus Development Corp.'s Agenda, competes with HyperCard as a programmable personal information manager.

However, Activision Inc. of Mountain View, Calif., did make a strong push for its line of HyperCard stackware, including Danny Goodman's Focal Point, a personal organizer that covers the same ground as Agenda. The product from Lotus of Cambridge, Mass., is not likely to outdo Focal Point, said analyst Jan Lewis, president of Lewis Research Co. of Sunnyvale, Calif., because "Agenda is not as sexy."

From a poll of attendees at two Mac conference sessions, it appeared that in those forums Apple was preaching mainly to the converted.

In one session, Battat responded to IBM's announcement of a December ship date for its multitasking OS/2 operating system, saying that Apple will offer true multitasking with interprocess communication and pre-emptive scheduling in the 1988 to 1989 time frame.

William Campbell, president of Apple's spinoff, Claris Corp. of Cupertino, Calif., outlined the company's "focus on horizontal productivity tools." Claris will update its current products, continue to acquire new ones and provide a foundation for further Macintosh development, he said.

Considering the PC flavor of COMDEX, it was not surprising that many of the new Mac products shown were those that provide connectivity to the IBM world.

"We found great user interest in products that run on both the Mac and the PC," said Jeff Raikes, director of application software marketing for Microsoft Corp. of Redmond, Wash. "Apple may not realize it, but such products are good for it because it ends the corporate lock-out of the Macintosh." ■

MICROPRO

Continued from Page 1

product will replace the functions of a whole collection of products."

One source close to MicroPro of San Rafael, Calif., said the program originally had been referred to as a page-layout application, but the description was changed to "high-end word processor" for marketing purposes.

Both companies are keeping details about the product's features close to the vest. They fear competition from other developing products because the release date is still months away. In addition, "we don't want that vaporware reputation," said Gary Winer, president of Challenger.

The program, which doesn't have an official name yet, should be on the market by June.

The acquisition of the program was completed the first week of November after a six-month search. "We looked at everything that was out there — both completed products and programs in development — and bought the best one," Williams said.

The agreement between the two companies specifies a payment of $3 million to Challenger over 36 months, with MicroPro handling the marketing and Challenger continuing development of Smaug. Challenger also will work on major upgrades of the product.

"Challenger wants to become a development organization and get out of marketing. MicroPro has the experience and expertise to bring this product to market successfully," Winer said.

Challenger will retain full control over its other Macintosh product, the two- and three-dimensional graphics package Mac 3D. For Smaug, however, the company had been looking for a marketing partner even before MicroPro let it be known it was hunting for a Mac word processor.

MicroPro's Williams was attracted to the Macintosh market because he has been a Mac aficionado since 1984, and the Macintosh market has proved itself, enough for Williams anyway.

"The Mac market is getting large enough that you can make money. I am very happy that I can now put one on my desk at work, too," said Williams, who has three Macs at home. ■

MAC THE KNIFE

Knife-doesn't-live-by-COMDEX-alone dept.: Before packing for Las Vegas, the Knife found himself wandering around the halls of the building that houses Prudential Life Insurance down in the San Fernando Valley near Los Angeles. (You'd get lost, too, in the biggest complex of office hallways this side of the Pentagon.) The walls were virtually quivering with the news that the marketing department, home of lots of SEs and IIs, was going to get a shiny new color LaserWriter to try out.

LaserWriter, hmm, doesn't Apple have a trademark on that? Yup. One employee from the Internal Audit Department was overheard swearing that it's a gift from beneficent Apple. This informant even said that the IA department could soon have one of its own, too, if the personnel wanted it. Let's see, you could use red to ...

The Knife, probably already late for the last Nevada flight, didn't stick around to hear the rest. Was it a dream?

We will ship no software before its time: Over at the Borland booth there was considerable consternation when they got wind of the fact that the word was on the street that shipments of Reflex Plus had been temporarily halted. Seems there was an obscure bug in the first version, something about a user trying to import a file with 12,000 records running into serious problems. In any event, Borland fans can relax because Borland claims that a fixed version shipped late last week, and all registered users can expect a new set of disks in the mail soon.

Double trouble: Just when you thought it was safe to run MultiFinder again, the Knife's electronic spies report that InBox isn't the only product developed by Think Technologies that's MultiFinder incompatible. This week's entry is its LaserSpeed print spooler. Simply put, it doesn't work with the newest print drivers.

Since you can't run Apple's background printing without MultiFinder and you can't run LaserSpeed with the new drivers, anyone who has a Think setup loses laser spooling in either direction. Maybe Think hasn't been thinking too well lately?

Remember the Macintosh programmer who was recruited to Peter Norton Computing from Monogram Software? The speculation was that Norton's company was developing a Mac edition of its respected file recovery and other utilities. Well, "Mr. PC's" project has been delayed because that same prized programmer has left the company for — OK, you win — Monogram Software. "All we did was get him a raise," lamented Norton's director of development, John Socha.

This one's for you

Business differences are getting personal between SoftView President Sue Morgan (of MacInTax fame) and the marketing vice president of spurned suitor Claris Corp. With the threat of lawsuits in the air, Claris' John Zeisler (a.k.a. "Z"), former head of software business development at Apple, cornered Morgan on the COMDEX show floor and asked for details about SoftView's reported filing.

When she didn't deliver, "Z" started to leave. But then he turned back and said, "I have something for you." With that, he bequeathed the single digit salute. "This is for all the help you've given me."

The software developers' court

Word has reached the Knife that at least one software group that woke up one morning to find itself a division of Claris is more than a tad upset about the way things are working out. They've already had heart-to-hearts with their lawyers about the new source-code licensing agreements drawn up under the Claris regime. Their people have met with Apple and Claris' people to discuss how to keep things amiable. We're talking seven figures here.

These product developers will do what they can to cut ties soon because, as one source explained, "Apple and Claris can mess you around pretty seriously." Judge Wapner?

We'll finally see Glass, or is it PowerPlay? No, it's Pegasus ... from Ashton-Tate at Mac Expo. Thrice code-named, Pegasus, the long-awaited Excel competitor, will ship in the first quarter of next year.

Formal corrections dept.: Last week the Knife wrote that SuperMac didn't have FCC stickers on its RLL-encoded 30- and 60-Mbyte DataFrame hard disks. What he was trying to say was they don't have the Class B stickers that Apple says are required for connections with any Mac. See, that attorney really is earning his keep.

* * *

Get the happy MacWEEK mug habit. Your tip, my mug. Call me at (415) 882-7370 or MCI (MactheKnife). ■

Don't Plan Ahead If You're Designing A Macintosh Data Management System In a Mini/Mainframe Environment!

Bill Hulbig, President
1stDESK Systems, Inc
the MicroGroup®, Inc.

During the last 3 years I have absolutely proven that the only effective way to realize the productivity potential of the Macintosh® in any size business is to thoroughly train employees regarding databases, such that they can supply worthwhile feed-back as to their own job needs.

The format of the data is the least important aspect to be concerned about. Why? All data can easily made compatible!

1stPORT® and 1stFILE® used together can redefine the number, length, position and type of fields within a record, reformat a fixed record to match a different length fixed record, merge any databases, and upload these merged files to any other computer or program.

Even exchanging data between HyperCard® and mainframes is simple!

Note: upload to another computer requires that the computer have communication capability to the accept data transfer.

Registered Trademarks: Macintosh, HyperCard, Apple: Apple Computer Corp.,
1stDESK, 1stFILE, 1stPORT, 1stMERGE: 1stDESK Systems,Inc

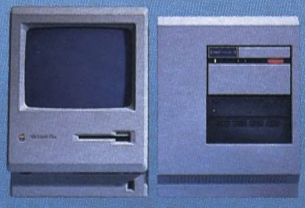
1stDESK Systems, Inc. 7 Industrial Park Road Medway, MA 02053
1-800-522-2286 (617)-533-2203
See Our Catalog In The Thomas Register @ Computer Software

MACsimum Storage!

RACET computes, Ltd.,
mass storage subsystem providers to the PC marketplace since the 1970's,
now supports the Apple MACINTOSH world.

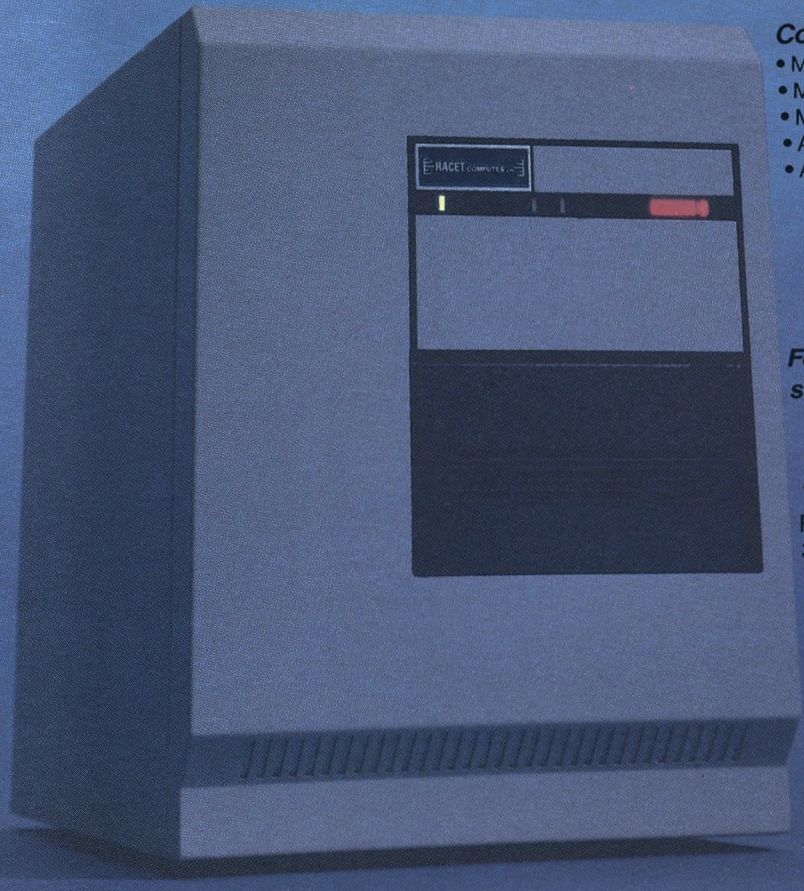
Capable

- Fastest system throughput
- Enclosure capacities up to 1 Gigabyte
- System capacities up to 14 Gigabytes
- 150 MB Tape streamer standard
- 512K RAM cache standard



Convenient

- Desktop footprint
- SCSI interface plug and play simplicity
- Complete utility software
- Automount multiple volumes on bootup
- Hard drives are easily re-addressed (SCSI ID's)



Compatible

- Mac Plus and 512E
- Mac SE
- Mac II
- Appleshare
- AUX (Apple UNIX)

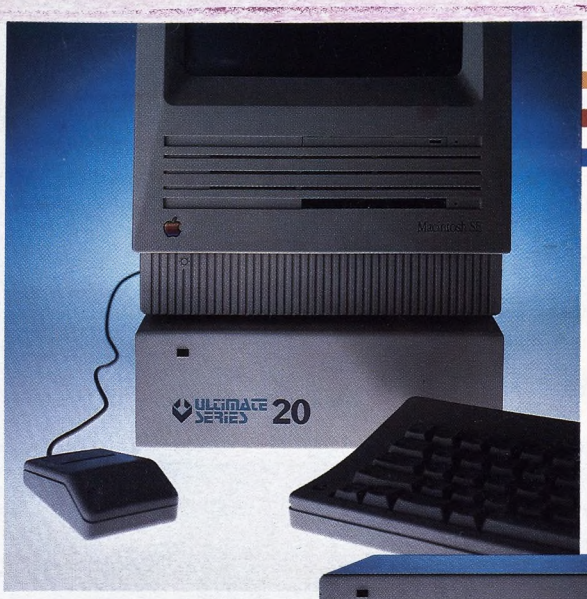
For information on our PCMS™ subsystems, call

RACET

RACET computes, Ltd.
3150 East Birch Street
Brea, CA 92621
(714) 579-1725

TLX 701160 (RACET UD)
FAX (714) 579-3183
Apple Link D0411

Take a Bite Out of the Cost of Your Apple



20mb SCSI kit for Apple, 68MS

40mb SCSI kit for Apple, 61MS

50mb SCSI kit for Apple, 26MS

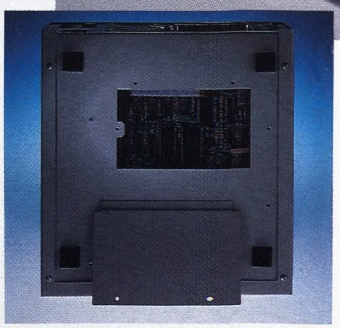
80mb SCSI kit for Apple, 30MS

90mb SCSI kit for Apple, 18MS

The Ultimate Series Apple Subsystems give you fast and simple "plug and play" installation. Compatible with the Apple Mac Plus, Mac SE, and Mac II, the systems include driver and utility software, SCSI cabling, internal power supply, and all necessary hardware.

*And the Ultimate Series is the only subsystem that is **shock mounted** for ease of portability.*

Call today for complete information on the Ultimate Series Apple Subsystems . . . the most effective answer for taking a bite out of the cost of your Apple.



▲ **Additional SCSI port allows daisy-chaining up to 7 SCSI devices. All controls and cable controls are clearly marked and easy to operate.**

◀ **Easy access to SCSI address select.**

MICROTEK INC.

1-800-367-6933

11878 Market Street
Livonia, MI 48150
313-464-2111
1-800-367-6933

Apple, Apple Mac Plus, Mac Se, and Mac II are registered trademarks of Apple Computer, Inc.